CHANGEABLE MESSAGE SIGN(CMS) OPERATING STANDARDS

pennsylvania
DEPARTMENT OF TRANSPORTATION
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Section I — Introduction

This document establishes Pennsylvania's standards for messaging of CMS. These standards are to be utilized by both the Pennsylvania Department of Transportation (PennDOT) and the Pennsylvania Turnpike Commission (PTC) and are sometimes referred to as Variable Message Signs (VMS) and Dynamic Message Signs (DMS) which are terms that can be used interchangeably. These guidelines apply to all CMS utilized within Pennsylvania regardless of manufacturer model or type of CMS (permanent, semi- permanent, or portable).

Ultimately, the successful use of CMS depends upon the accuracy, reliability and timeliness of the information being displayed. Improper sign use, or inaccurate information will erode motorist confidence and reduce overall sign effectiveness. This document has been developed to provide clear instructions on acceptable and unacceptable uses for CMS. Numerous sources were used to develop these standards including:

- The *Manual on Uniform Traffic Control Devices* (MUTCD) 2009 Edition
- CMS Operation and Messaging Handbook – a document developed as part of the Transportation Management Center Pooled-Fund Study (TMC PFS) Changeable Message Sign Operations and Messaging Project
- Several Federal Highway Administration (FHWA) reports and directives
- PennDOT and PTC User Comments
- Other State CMS Guidelines

This publication should be utilized in collaboration with Publication 855 (TSMO Guidebook Part V – Operations) For additional information or questions regarding the CMS Standards, please visit the PennDOT TMC portal (https://pagov.sharepoint.com/sites/pd-tmcportal).

Section II — CMS Messaging Standards

A. Message Standards

The following are established CMS messaging standards which are in conformance with the Manual on Uniform Traffic Control Devices (MUTCD). The figure below identifies the criteria to the left with detailed direction to the right.

Criteria	Requirements
Message Objectives	• Accurate, Reliable, Relevant and Timely Safety and Mobility Information to the roadway users. • Message Comprehension and Conveying need to (MUTCD 1D.01): ▪ Fulfill a need ▪ Command attention ▪ Convey a clear, simple meaning ▪ Command respect from road users ▪ Give adequate time for proper response. • Traffic operations staff are required to implement these standards as defined within the Standard Operating Procedures (SOPs) • English messages will be utilized unless otherwise directed by Executive leadership with coordination with BOMO.
General	• All CMS messages should follow the standards provided within this document. • All messages should follow the Problem-Location-Action (PLA) method when creating CMS messages as indented within **Section II (D)**. • Only approved abbreviations contained in Appendix A Tables 1D-1 and 1D-2 • In Appendix A unapproved abbreviations can be found in table 1D-3 • Each message shall consist of no more than **two phases**, and each phase shall consist of no more than **three lines**. MUTCD Section 2L.05 • 1 Phase messages are preferred to disseminate information to the motorist • Ensure consistent corridor message as identified within **Section II (E)**. • If more than two phases of information are needed, two independent CMS in a row with a maximum of two phases each, and with messages that need to be coordinated • No Advertising messages shall be displayed on CMS boards, supports or equipment.
Phase Message	• All Messages within the message catalog are located in **Appendix D or TMC Portal.** • New Messages or adjustments to existing messages need to follow **Section III**. • All Abbreviations need to follow **Appendix A** (MUTCD Section 1D.10). • Additional Color Message standards are provided in **Section II (B)**. • Each phase message will be understood by itself regardless of the sequence. • No scrolling or moving text messages within a phase. • No animation such as fading, rapid flashing, exploding, dissolving, or other dynamic elements within a phase. • Do not provide a single word phase message (i.e. “Danger”, “Warning”, “Caution”, etc.) or repeat the same word (e.g. “Caution, Caution, Caution”). CMS should be used as a supplement to and not as a substitute for conventional signs.
Message Timing	• Maximum cycle time of a two-phase message shall be 8 seconds (MUTCD Section 2L.05) • Minimum cycle time of a single-phase message is 2 seconds. • Maximum duration between phases will not exceed 0.3 seconds. • Specific timing of each phase will be evaluated and determined by: ▪ Default value of 3 seconds per phase should be a starting point. ▪ Planned events will utilize the default value unless otherwise specified by the District Traffic Engineer or designee. ▪ Unplanned events may vary based on the complexity of the message and will start with the default value and modified by the TMC operator between the minimum and maximum values.

Criteria	Requirements
Font Size and Message Length	• Each message shall consist of no more than two-phases. A phase shall consist of no more than 3 lines of text • All UPPER-CASE Letters and single stroke font must be used (MUTCD Section 2L.04) • Greater than 45 mph – Minimum 18-inch UPPER CASE letters. • Less than 45 mph – Minimum 12-inch UPPER CASE letters. • For PCMS mounted on service patrol vehicles or other incident response vehicles, a letter height as short as 10 inches may be used (MUTCD 2L.05)
Message Legibility and Visibility	• Visibility is associated with the point where the CMS is first detected, whereas legibility is the point where the message on the CMS can be read • All Visibility (can see) and Legibility (can read) shall comply with MUTCD Section 2L.03 • If environmental conditions are present and cause reduced visibility and legibility, then single phase messaging should be utilized. This will allow the motorist to see the message quickly and comprehend the information.
Message Prioritization	• Message prioritization please see Section II (C). CMS message priorities are established to ensure that the most important messages are being displayed. Higher priority messages will remain regardless of the "message queue" & and the higher priority message will be posted. Please see **Section II (C).**
Travel Time Messaging	• Travel Time Messages use speed data from INRIX real-time speed data or electronic freeway sensor equipment (e.g. radar, toll tag readers, etc.) to establish, calculate and display travel time messages on CMS around the state through the ATMS software. • Travel time messages help motorists make informed decisions and should be utilized wherever generic traffic information is being considered or in place of subjective messaging (e.g. "expect delays"). Additionally, travel time messages provide next to real- time updates to inform motorists of changing traffic conditions. • Travel times should follow the prioritization guidelines outlined within **Section II (C)**. • Travel Time Messages should identify: ▪ Major Exit Locations (Exit Number and/or destination). ▪ Major Roadway Interchanges (Route Number) ▪ Major destination ▪ Major decision point • Travel Time distance should be provided when character spacing is available to provide motorists additional information or if providing multiple destination point travel times. • Avoid using local road names where possible so that all motorists can understand the message. • Long distance travel times may be difficult and misleading if congestion only begins near the destination point. In those situations, other traffic operations messaging should be utilized instead of travel time messaging. • Minimum time thresholds established in ATMS should be used to ensure speeding is not encouraged. Once this threshold is applied, the travel time message will not report a time that is lower than the defined minimum. • If you do not provide the distance in miles to the destination on your CMS message, you do not need to use the minimum time threshold when building your travel times. • Work Zone Travel Times need field verification of speed limit from the field point of contact. • Travel time message should be labeled with "TRAVEL TIME TO" or "TIME TO" as character spacing permits

Criteria	Requirements
Work Zone Messaging	• Permanent CMS that are located within a work zone can be used to give information regarding the work zone or provide support for incidents in or around the vicinity of the work zone. At no time should any conflicting information regarding the work zone or any incidents be posted on the CMS to avoid distracting/confusing the motorists. • All messages posted on CMS for construction, maintenance, permit, or other projects shall comply with these CMS Operating Standards. Refer to the Contractors Work Zone tab located in the CMS catalog for guidance on messages that can be used for work zones. • All PCMS requirements regarding display, placement and deployment shall be in accordance with Publication 408, Publication 213, and the contract provisions. • All Work Zone messaging needs to be in conformance with the CMS Catalog principles provided within **Appendix D or on the TMC portal.** • Prior to any additions or modifications to Work Zone Messaging in the CMS Catalog, any modifications to the messaging needs to be provided to the appropriate District Work Zone Manager. The District Work Zone Manager will follow the process identified in **Section III (B)** to obtain approval of the message. No messages should be implemented until prior approval is received. • Maximum of two phases, where practical however, one phase messaging is encouraged. • Work Zone specific boards when not in use should be turned perpendicular to traffic flow or blanked, so motorists do not see the screen (if possible) • Work Zone specific boards if not able to be turned perpendicular to traffic flow, boards should be blanked when the work zone is inactive • Work Zone messaging can be effective, but it needs to be properly evaluated to ensure that it is not overused. CMS shall not replace static Work Zone signs. • Permanent CMS that are located within the limits of work in a work zone shall not be lit or display any messages to avoid distracting motorists • CMS should be used to complement static signs to alert road users with: ▪ **Upcoming construction and/or maintenance activities** that may create additional delays, queuing, modify geometric features, or require roadway restrictions are required to follow these stipulations when posting information on a CMS: ▪ Pre-work zone messaging shall not be displayed more than 14 days before work is scheduled to begin ▪ When construction and/or maintenance activities are further the 1-week away than the exact date shall be used on the CMS ▪ When construction and/or maintenance activities are within 1-week away then the day work will begin shall be used on the CMS (ex: Monday) **Please refer to the Queue Protection tab of the CMS Catalog** ▪ . These activities can include, but aren't limited to: ▪ Initial Construction project start date ▪ Start/Restart of Construction Season ▪ Reopening date of project ▪ Major Construction phase adjustments ▪ Additional short-term activities needed while a long-term pattern is established • **Advanced work zone elements** such as: ▪ Speed reductions and Detours ▪ Geometric changes (lane shifts, modified tapers, alignment adjustments, etc…) Please see the CMS catalog for messages pertaining to geometric changes in the work zone. The CMS catalog can be found in Appendix D or on the TMC Portal ▪ Other safety or mobility concerns created by the work zone • **Real-time work zone conditions** such as: ▪ Manual notification of crashes or other incidents ▪ Manual notification of advanced restrictions or queue information ▪ Automated notification through the utilization of Smart Work Zone technologies to provide advanced notification, road user feedback and/or road user direction. Please note that if you are considering this technology, please contact your appropriate

Criteria	Requirements
	Regional Traffic Management Center (RTMC) when considering the implementation of this technology. While many systems are available to provide this technology, the Department has developed several applications within our Advanced Transportation Management System (ATMS) that may be able to automate the following situations: ▪ Travel Time Messaging ▪ Queue Detection and Warning ▪ Corridor Incident/Event detection and diversion ▪ Ramp Metering ▪ Variable Speed Limit (VSL) Information ▪ Advanced Transportation Management (ATM) strategies such as dynamic lane or part-time shoulder running
Unacceptable Messages	• Under no circumstance shall the following messages be displayed on a CMS: • Advertising – Messages advertising or promoting any commercial product, service, campaign, political party, etc. • External Web Addresses - No privately-owned web addresses are acceptable. Commonwealth and federally administered web addresses are allowable but require a prior approved exception. Requests should be sent to the STMC resource account RA-PDSTMC@pa.gov • Phone Numbers – Only phone numbers authorized/approved by the PTC or PennDOT Central Office are able to be posted. Any requests or questions should be sent to the STMC resource account RA-PDSTMC@pa.gov • Vague Incident Messages – Generic descriptors when accurate travel time information is available and/or alternative routing is possible (e.g. "MAJOR DELAYS") • Inaccurate Weather or Minor Pre-Emptive Weather Messages – Weather messaging should be updated frequently based on current roadway conditions in the respective geographic area. Pre-emptive weather messaging is allowable only for NOAA issued watches, warning, and advisories in or near the geographical areas of the alert • "Accident" when referring to a crash- Acceptable terms are "Crash" and "Incident"
Scheduled Safety Message (SSM) Calendar	• Annually, the Scheduled Safety Message (SSM) Calendar will be distributed to all TMCs and District Press Officers at the beginning of each calendar year and will also be updated and available in the TMC Portal. The SSM Calendar provides the exact CMS messages that are authorized for use in support of a National Highway Traffic Safety Administration (NHTSA) campaigns. • SSMs will only be displayed during the dates/time established within the calendar. • SSM statistics (citation, crash, fatality) can be displayed on the second phase of the message with the following guidelines: ▪ Single stroke font will be utilized (1-line no breaks to create the letter or number) ▪ Statistic discretion shall be coordinated between the District Traffic Engineer and Press Office staff with direction provided to TMC staff. ▪ TMC staff and appropriate Press Office should identify the most effective locations to display the message. • Unless higher priority messages are being displayed, SSMs should be displayed on at least 50% of the region's TMC devices. • SSMs may not be displayed during peak traffic times which include: ▪ 6:00 AM to 9:00 AM, Monday through Friday ▪ 3:00 PM to 7:00 PM, Monday through Friday • Discretion is left to each local TMC and Press Office on which statistic messages are run ▪ Statistical guidance may be provided or requested from BOMO or the Central Press Office at least one (1) week before the start of the campaign ▪ BOMO strongly recommends that each TMC vary the statistics they display within their jurisdiction's CMS. ▪ Additional message requests or a customized Local Safety Message in conjunction with the SSM should follow **Section III (B)**.

B. Color Message Standards

The following are additional criteria when colored messages boards are available. Each TMC operator should understand which CMS have color capabilities to allow for these additional criteria to be utilized, when available.

Criteria	Requirements
General Color Message Standards	• All CMS Messaging criteria specified in **Section II A** should be followed unless otherwise specified below. • All Legends and backgrounds need to follow MUTCD Table 2A-2. MUTCD approved graphics can be used on CMS boards as long as the pixel resolution allows the graphic to be displayed clearly. (Examples of these messages can be found in **Appendix D.**) • Maximum of 5 different colors can be utilized for one message phase. ▪ Exception: If the Pennsylvania State Police (PSP) provides a photo of the individual(s) or vehicle involved, that photo should be submitted to RA-PDSTMC@pa.gov for review and approval by BOMO management. If approved, the photo can be displayed on the CMS. • Graphics may be used in place of text only if the messages meaning being conveyed to the motorist remains the same as if it were all in text. • Approved graphics can either be displayed stand-alone or can appear to supplement text within the message. • Color needs to be applied consistently throughout the system; colors should have the same meaning on each screen. Standard color code convention for traffic events help motorist with making informed decisions. Color coding should utilize the following: ▪ Red – Queued/Stopped Traffic, Closures, Hazards ▪ Amber/Yellow – Caution Messages, Warnings, and Traffic Slowdowns ▪ Green – Normal Conditions and Information Messages • Graphics shall not be used if the size of the text will be compromised. Meaning that if the text becomes illegible or the visibility drops below the MUTCD guidance the graphic shall not be used. • Solid color backgrounds shall not be used when displaying a traffic information message due to the color contrast. Additionally, this could adversely affect the driver's vision and cause them to become distracted and or lose vision due to the contrast of the board.
Colored Travel Time Messaging	• When colored boards are available, Travel Times should be displayed in color as outlined in **Appendix D**. • Symbol designs shall in all cases be similar to those in Section 1A.05 of the MUTCD Standard Highway Signs Publication • Alternative travel times to the same destination should also utilize color wherever possible to provide motorists options while easing congestion on our major highways. • Travel Time message and color display should be as follows: ▪ Green lettering – Free Flowing Traffic with no traffic delays. ▪ Amber/Yellow lettering – Moderate Traffic with minor delays. ▪ Red lettering – Heavy Traffic with significant delays. • Colored banners or highlights can be utilized on Travel Time messages to indicate whether a travel time is improving or getting worse depending on the data. While banners and highlights are not required for posting travel time messages, studies have shown that motorists react and understand travel times more effectively when highlighted • When available red or green colored banners or highlights should be utilized with white lettering for the travel times. • If boards are not able to display white letters, then an amber banner or highlight should be utilized with black-lettered travel time messages. • Refer to **the Appendix D** or the **TMC Portal** for examples of colored travel time messages.

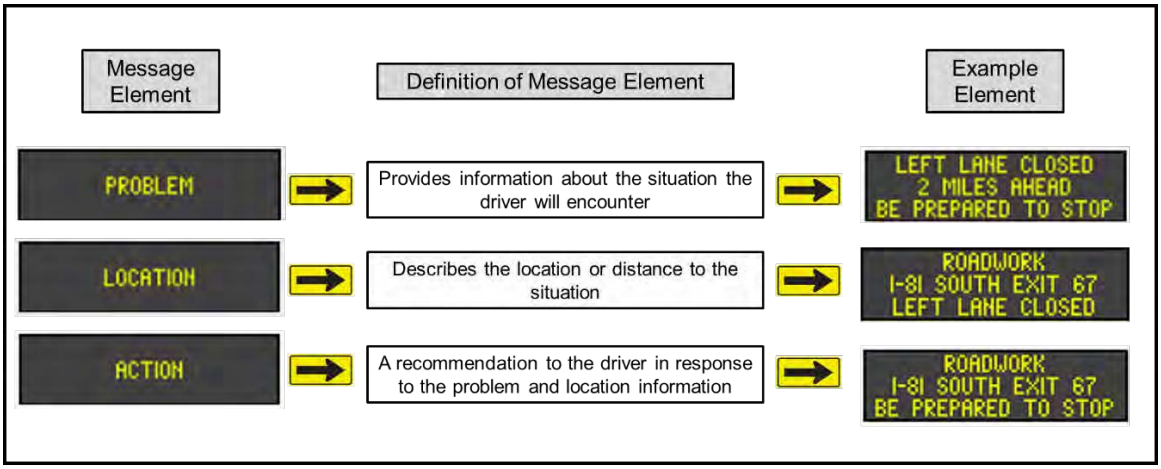
C. Message Prioritization

The priorities set for CMS messages are designed to allow more important messages to be displayed as needed, with a higher priority message taking the place of an existing message, managed by the ATMS module. Messages overridden by a higher priority message remain in the message queue and post when the higher priority message is blanked. If the message is in the queue, it will be displayed. The message prioritization table is shown below with a more detailed version in **APPENDIX B**.

Priority Level	Priority Name	Priority Description
1	**Override All**	Automated Queue Messaging utilized on CMS that are applicable to this feature.
2	**Full Road Closure**	Utilized when the roadway is completely shut down
3	**Roadway Restriction**	Lane restriction, shoulder closure, mobile operation and traffic disruption
4	**Queue Protection**	Utilized to alert motorists regarding stopped or slowed traffic ahead.
5	**Active Emergency / Weather Restrictions**	Utilized during active inclement weather restrictions/scenarios
6	**AMBER / MEPA Alert**	Utilized only when an email notification is received from the STMC
7	**Active Weather / Road Conditions**	Utilized during active flooding, fog, winter weather conditions (e.g. advisory/warning) etc.
8	**Automated Message**	Utilized for messaging that is automatically generated (future release)
9	**Special Event**	Utilized during events such as parades, 5K races, sporting events, etc. that may affect traffic
10	**Future Events / Weather Restrictions**	Utilized for pre-emptive messaging
11	**Scheduled Safety Message (SSM)**	Utilized during scheduled message events via the Scheduled Safety
12	**Travel Time Messages**	
13	**Sign Testing**	Acceptable messages should state “TEST MESSAGE” or “SIGN UNDER TEST”. • The operator of the CMS board may post an SSM on a board for testing purposes. Signs under testing must be carefully watched if using an SSM while testing a CMS to ensure that there are no missing pixels and they message can be understood.
14	**Sign Blank Testing**	

D. Standard Message Structure

Unclear or confusing messages may distract drivers from the task of driving. Basic CMS message content is often determined using the acronym PLA, which stands for "Problem-Location-Action" (see figure below):



As identified within **Section II (A)**, the message objectives outlined below help ensure that the most effective message is being considered.

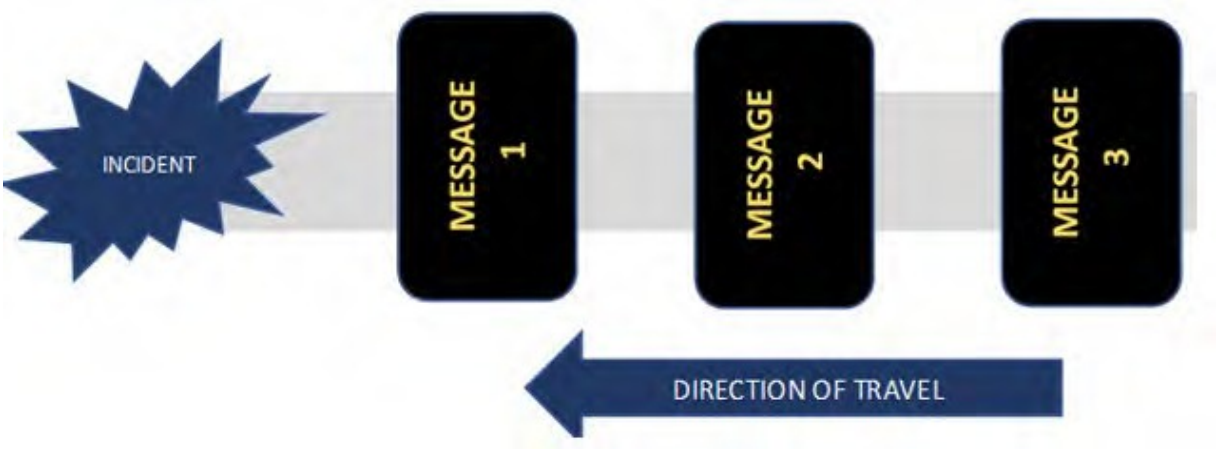
- Fulfill a need
- Command attention
- Convey a clear, simple meaning
- Command respect from road users
- Give adequate time for proper response

Additional consideration needed when developing messages include:

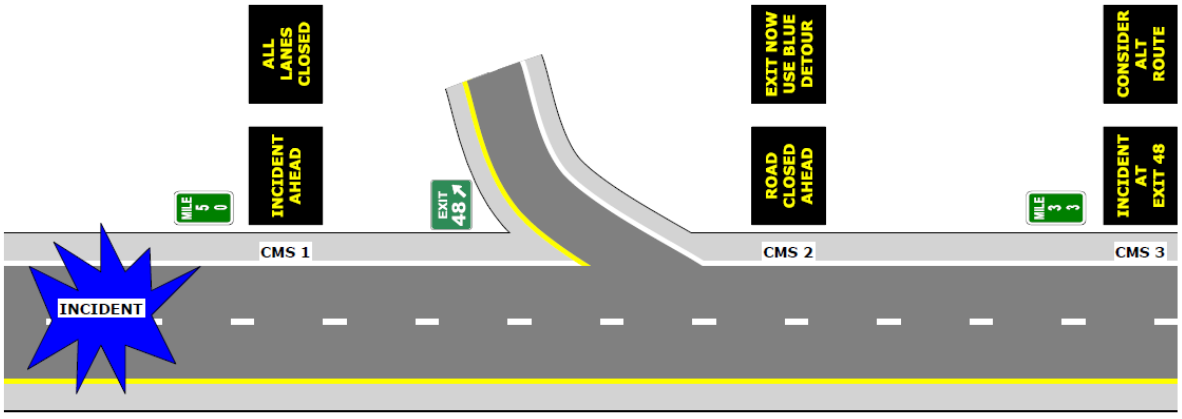
- **Effect on Travel**: Informs the traveler of the severity of the situation by using delay or travel time and helps the traveler form expectations about their trip or decide to change their travel plans. Examples of this message element include: "# Min Delay."
- **Audience for Action**: Used when the Action message element applies to a specific group of travelers rather than everyone passing the CMS. Examples of this message element include: "Eastbound Traffic," "PGH Metro Area."
- **Good Reason for Following the Action**: Gives a traveler confidence that following the advice on the CMS will result in safer travel and/or significant savings in time. Examples of this message element include: "Best Route to I-95," "Avoid # Min Delay."

E. Corridor Message Consistency

Corridor messaging and consistency is critical to ensuring that road users will respect and adjust travel patterns based on the information displayed on CMS. To ensure consistency the following principles should be used when determining the priority order for displaying an incident message and the level of content provided in that message.



The image above shows a simplistic example of how the boards should be lit leading up an incident. Below is a more detailed graphic that shows an example of incident with exit routes before the incident on the roadway and the lighting of boards leading up to that specific incident. Please note that this is just an example and would need to be customized depending on the incident. If possible, single phase messaging is preferred in order to get the information to the motorists in a concise and accurate manner.



- Message boards immediately upstream of an incident should be activated first as provided within Figure 1 (Message 1).
- Message boards immediately upstream of an incident should provide appropriate and relevant information considering:
    - Immediate Warnings or Roadway Hazards
    - Extent of the Incident and any roadway user actions
    - Proximity of exits in advance to the incident and direction to roadway users to minimize back of queue crashes
    - Provide appropriate closure information as well as detour information if available
- During an incident the back of the queue steadily changes, relevant CMS messaging must follow shifting traffic conditions.
- Highways that are within proximity of incidents or events and contain CMS should be evaluated and

provide relevant information of the incident.
    - Highways within proximity are considered any roads that are directly connected to the roadway that is being affected by the incident.
- Messages should be in accordance with Appendix D and the message displayed should be consistent along the roadway corridor and adjacent corridors.
- TMC or STMC staff must review and quality control messages frequently to ensure messages are timely, relevant and accurate to travelers as well as ensuring they are not confusing or contradictory.
- Message coordination should extend between regions with the TMCs being in contact with each other during incidents as well as monitoring within ATMS.
- The STMC can provide additional coordination and resolution of message conflicts.

Section III — CMS Catalog and Message Requests

A. Introduction

To maintain consistency with the CMS messages across the state, a CMS message catalog has been developed and can be found on the TMC Portal (https://pagov.sharepoint.com/sites/pd-tmcportal). To ensure that the message catalog is kept up to date the most current modification date will be listed at the top of the catalog. The Catalog contains standardized message templates that allow for customization while maintaining the message structure uniformity. Any suggestions or modifications may be submitted to Traffic Systems and Performance of the Bureau of Maintenance and Operations (BOMO) as outlined within **Section III (C)**. It is recommended that suggestions and modifications are first discussed and agreed to by the TMC Manager prior to submission. Any questions or comments regarding the CMS catalog should utilize the contact below:

- RA-PDSTMC@pa.gov

B. Requesting New Messages or Modifications to CMS Catalog

New messages or modification of existing message(s) or message priority can be requested. The following should be submitted for review and approval. It should be obtained as outlined below in accordance with the MUTCD, national direction from research or field performance, other state practices and standards provided within this document.

PennDOT Messages

- Pre-planned Messages –
  - District Traffic Engineer or designee submits at least 3-business days prior for consideration.
  - District Traffic Engineer or designee will ensure that proper collaboration and approvals are obtained from District Executive Leadership and Press Office staff.
  - Requests will be sent to the contacts identified within **Section III (A)** for review and approval.
- Immediate Messages – (Messages needed within the next 24-hours)
  - Area Commander or District Traffic Engineer or designee, or ICC submits a request to the Statewide Traffic Management Center (RA-PDSTMC@pa.gov).
  - Requester will ensure that proper collaboration and approvals are obtained from the Executive Leadership and press office staff in both the District and Central Office.
  - Requests within 24-hours will be coordinated through STMC who will coordinate with appropriate staff within the TSMO Operations and Performance Section.

Appendix A – Approved/Unapproved Abbreviations

Table 1D-1 Acceptable Abbreviations

Word Message	Standard Abbreviation	Word Message	Standard Abbreviation
Afternoon / Evening	PM	Mile(s)	MI
Alternate	ALT	Miles Per Hour	MPH
AM Radio	AM	Minimum	MIN
Avenue	AVE, AV	Minute(s)	MIN
Bicycle	BIKE	Monday	MON
Boulevard	BLVD*	Morning / Late Night	AM
Bridge	(See Table 1A-2)	Mount	MT
CB Radio	CB	Mountain	MTN
Center (as part of a place name)	CTR	National	NATL
Circle	CIR*	North	N
Civil Defense	CD	Parkway	PKWY*
Compressed Natural Gas	CNG	Pedestrian	PED
Court	CT*	Place	PL*
Crossing (other than highway-rail)	X-ING	Pounds	LBS
Drive	DR*	Road	RD*
East	E	Saint	ST
Electric Vehicle	EV	Saturday	SAT
Expressway	EXPWY*	South	S
Feet	FT	State, county, or other non-US	(See Table 1A-2)
FM Radio	FM	or non-Interstate numbered route	
Freeway	FRWY, FWY*	Street	ST*
Friday	FRI	Sunday	SUN
Hazardous Material	HAZMAT	Telephone	PHONE
High Occupancy Vehicle	HOV	Temporary	TEMP
Highway	HWY*	Terrace	TER*
Hospital	HOSP	Thursday	THURS
Hour(s)	HR, HRS	Thruway	THWY*
Information	INFO	Tons of Weight	T
Inherently Low Emission Vehicle	ILEV	Trail	TR*
International	INTL	Tuesday	TUES
Interstate	(See Table 1A-2)	Turnpike	TPK*
Junction / Intersection	JCT	Two-Way Intersection	2-WAY
Lane	(See Table 1A-2)	US Numbered Route	US
Liquid Propane Gas	LP-GAS	Wednesday	WED
Maximum	MAX	West	W

*This abbreviation shall not be used for any application other than the name of a roadway.

Table 1D-2 Abbreviations That Are Acceptable On Portable Changeable Message Signs

Word Message	Standard Abbreviation	Prompt Word That Should Precede the Abbreviation	Prompt Word That Should Follow the Abbreviation
Access	ACCS	—	Road
Ahead	AHD	Fog	—
Blocked	BLKD	Lane	—
Bridge	BR*	[Name]	—
Cannot	CANT	—	—
Center	CNTR	—	Lane
Chemical	CHEM	—	Spill
Condition	COND	Traffic	—
Congested	CONG	Traffic	—
Construction	CONST	—	Ahead
Crossing	XING	—	—
Do Not	DONT	—	—
Downtown	DWNTN	—	Traffic
Eastbound	E-BND	—	—
Emergency	EMER	—	—
Entrance, Enter	ENT	—	—
Exit	EX	Next	—
Express	EXP	—	Lane
Frontage	FRNTG	—	Road
Hazardous	HAZ	—	Driving
Highway-Rail Grade Crossing	RR XING	—	—
Interstate	I-*	—	[Number]
It Is	ITS	—	—
Lane	LN	[Roadway Name]*, Right, Left, Center	—
Left	LFT	—	—
Local	LOC	—	Traffic
Lower	LWR	—	Level
Maintenance	MAINT	—	—
Major	MAJ	—	Accident
Minor	MNR	—	Accident
Normal	NORM	—	—
Northbound	N-BND	—	—
Oversized	OVRSZ	—	Load
Parking	PKING	—	—
Pavement	PVMT	Wet	—
Prepare	PREP	—	To Stop
Quality	QLTY	Air	—

Table 1D-2 Abbreviations That Are Acceptable Only with a Prompt Word (Con't)

Word Message	Standard Abbreviation	Prompt Word That Should Precede the Abbreviation	Prompt Word That Should Follow the Abbreviation
Right	RT	Keep, Next	—
Right	RT	—	Lane
Roadwork	RDWK	—	Ahead, [Distance]
Route	RT, RTE	Best	—
Service	SERV	—	—
Shoulder	SHLDR	—	—
Slippery	SLIP	—	—
Southbound	S-BND	—	—
Speed	SPD	—	—
State, county, or other non-US	[Route Abbreviation	—	[Number]
or non-Interstate numbered route	determined by		
	highway agency]**		
Tires With Lugs	LUGS	—	—
Traffic	TRAF	—	—
Travelers	TRVLRS	—	—
Two-Wheeled Vehicles	CYCLES	—	—
Upper	UPR	—	Level
Vehicle(s)	VEH, VEHS	—	—
Warning	WARN	—	—
Westbound	W-BND	—	—
Will Not	WONT	—	—

* This abbreviation, when accompanied by the prompt word, may be used on traffic control devices other than portable message signs.
** A space and no dash shall be placed between the abbreviation and the number of the route.

Table 1D—3 Unapproved Abbreviation

Abbreviation	Intended Word	Common Misinterpretations
ACC	Accident	Access (Road)
CLRS	Clears	Colors
DLY	Delay	Daily
FDR	Feeder	Federal
L	Left	Lane (Merge)
LT	Light (Traffic)	Left
PARK	Parking	Park
POLL	Pollution (Index)	Poll
RED	Reduce	Red
STAD	Stadium	Standard
WRNG	Warning	Wrong

PennDOT Approved Abbreviations

Word	Abbreviation
Northbound	NB
Southbound	SB
Eastbound	EB
Westbound	WB

Appendix B – Message Prioritization Table

TMCs shall choose the message with the highest priority level from the following list:

Priority Level	Priority Name	Priority Description
1	**Override All**	Automated Queue Protection Applications • Utilized for messaging that is automatically generated where applicable, to alert motorists of stopped or slowed traffic ahead • All message boards in the state are not able to use this functionality and will have to be manually overridden when this application is needed • To prevent secondary incidents or any other traffic related events due to an existing incident downstream • Incident and Event-Induced Congestion – Occurs when an incident or event has directly affected traffic flow (e.g., "on-hour" work zone congestion). • Post-Closure Congestion – Occurs when there is residual congestion from a cleared event. • Recurring Congestion – Occurs when congestion routinely develops during a specific period (e.g., morning or afternoon rush) due to roadway geometry constraints or other factors. Vague recurring congestion messages are prohibited. If there is no direct cause of congestion, a second phase message shall be used to describe the location or distance to the congestion or incident, delay and travel time, or alternative route. • Off Hours Work Zone Congestion – Occurs when congestion develops in an inactive work zone.
2	**Full Road Closure**	Utilized when the roadway is completely shut down • This priority may be overridden if a secondary event (e.g. secondary crash) occurs between the CMS and the initial incident closing the roadway • Note – the event closest to the CMS should take precedence • Due to immense impact it is essential that consistent messages are displayed across the state • Neighboring District/Toll Authority/DOT Full Closure, the TMC can request that neighboring TMC display advanced warning messages on appropriate roadways
3	**Roadway Restriction**	Lane restriction, shoulder closure, mobile operation and traffic disruption • If there is a CMS located near a roadway crew or an incident– activate CMS to provide as much protection and advanced warning as possible (default priority) • A lane closure could be due to a crash, fire/police activity, disabled vehicle, maintenance/construction, hazmat, or other reasons.
4	**Queue Protection**	Utilized to alert motorists regarding stopped or slowed traffic ahead. • Non-recurring congestion defined: Congestion that DOES NOT occur within that specific area on a regular/daily basis • Incident and Event-Induced Congestion – Occurs when an incident or event has directly affected traffic flow (e.g., "on-hour" work zone congestion). • Post-Closure Congestion – Occurs when there is residual congestion from a cleared event. • Recurring Congestion – Occurs when congestion routinely develops during a specific period (e.g., morning or afternoon rush) due to roadway geometry constraints or other factors. Vague recurring congestion messages are prohibited. If there is no direct cause of congestion, a second phase message shall be used to describe the location or distance to the congestion or incident, delay and travel time, or alternative route. • Off Hours Work Zone Congestion – Occurs when congestion develops in an inactive work zone.

5	**Active Emergency / Weather Restrictions**	Utilized during active inclement weather events/scenarios: • Speed/Vehicle Restrictions • Evacuation Routes • Active Emergency notice • Please refer to the document released by PEMA concerning the 6 levels of restrictions during winter storm events. • During emergency situations, CMS can be used to direct motorists to important locations such as relief shelters or evacuation zones. All destination guidance messages must be approved in advance by active PennDOT Area Commander
6	**AMBER / MEPA Alert**	Utilized only when an email notification is received from the STMC •If a Priority 5 & 6 are active simultaneously, alternate or "stagger" CMS to ensure both messages are being displayed throughout the area of interest •Amber Alert and Missing Endangered Person Advisory (MEPA) messages shall be displayed upon notification from PSP and confirmed by PennDOT's Amber Alert Coordinator •Refer to the CMS catalog for approved messages
7	**Active Weather / Road Conditions**	Utilized during active flooding, fog, winter weather conditions (e.g. advisory/warning) etc.
8	**Automated Message**	Utilized for messaging that is automatically generated (future release) • Such things as speed detection, hazardous weather conditions, etc.
9	**Special Event**	Utilized during events such as parades, 5K races, sporting events, etc. that may affect traffic
10	**Future Events / Weather Restrictions**	Utilized for pre-emptive messaging such as: • Speed/Vehicle Restrictions • NWS Weather Alerts • Planned or Future Roadwork that will affect traffic
11	**Scheduled Safety Message (SSM)**	Utilized during scheduled message events via the Scheduled Safety Message Calendar (reference TMC Portal Statewide Calendar) • Supporting the National Highway Traffic Safety Administration campaign • SSMs shall be displayed during and only on the dates/times established by the SSM calendar • Unless a CMS is being used to display a higher priority message, SSMs shall be displayed 50% of the time not allocated to higher priority messages.
12	**Travel Time Messages**	
13	**Sign Testing**	Acceptable messages should either state "**TEST MESSAGE**," "**SIGN UNDER TEST**," or display a portion of the alphabet, a sequence of numbers, date/time, moving asterisk, or a non-message test pattern such as moving columns or rows in accordance with the device test plan. • PennDOT SSM messages may be used when testing CMS boards.
14	**Sign Blank Testing**	

If you have any questions or concerns regarding the above ATMS Priorities and corresponding information, contact the STMC at 717.346.4400 or RA-PDSTMC@pa.gov

Appendix C – Turnpike/PennDOT Messaging Guidelines for Turnpike Changeable Message Signs

The Pennsylvania Turnpike Commission (Turnpike) has deployed CMS along PennDOT roadways in advance of entrances to their system. The primary purpose of these CMS is to communicate Turnpike conditions and other vital traveler information to approaching motorists. This Appendix outlines the prioritization and coordination of messages on Pennsylvania Turnpike Commission Dynamic Messages Signs (CMS) on PennDOT Right-of-Way.

Criteria	Requirements
Contact Information	• **PTC TOC** ▪ Email –opsctr@paturnpike.comEmail – DutyOfficer@paturnpike.com ▪ Phone – (866) 332-5889 • **Statewide Traffic Management Center** ▪ Email – RA-PDSTMC@pa.gov ▪ Phone – (717) 346-4400 • **Western RTMC (Pittsburgh – Districts 1, 10, 11, & 12)** ▪ Email – PD-District11RTMC@pa.gov ▪ Phone – (412) 429-6030 • **Central RTMC (Clearfield – Districts 2, 3, & 9)** ▪ Email – PD-Dist2-0RTMC@pa.gov ▪ Phone – (814) 768-0725 • **Eastern RTMC (Harrisburg – Districts 4 (6 PM to 6 AM), 5 (8PM to 6 AM), & 8)** ▪ Email – RA-DIST8-0TMC@pa.gov ▪ Phone – (717) 265-7600 • **Southeastern RTMC (Philadelphia – Districts 6)** ▪ Email – PD-District6-0RTMC@pa.gov ▪ Phone – (610) 205-6934 • **District 4 DTMC (Scranton – 6 AM to 6 PM)** ▪ Email – RA-pdDist40TMC@pa.gov ▪ Phone – (570) 963-4058 • **District 5 DTMC (Allentown – 5:45 AM to 8:00 PM)** ▪ Email – RA-PDDistrict5-0TOC@pa.gov ▪ Phone – (610) 871-4600 • **District 1 DTMC (Erie – Districts 1 – Winter (November to April))** ▪ Email – RA-pddo01Dispatch@pa.gov ▪ Phone – (814) 678- 5003
Process for Requesting Messages	• PennDOT's STMC, RTMC, or DTMC identifies that the utilization of the PTC message board will benefit road users of a roadway condition. • PennDOT's STMC, RTMC, or DTMC will submit through email to the PA Turnpike TOC the following: ▪ Location of the CMS being requested. ▪ Justification of need and purpose of the message. ▪ Message being requested ▪ Length and/or time times when the message is needed. • PA Turnpike's request to utilize PennDOT messages will follow **Section III (B).**

Criteria	Requirements
Message Prioritization	• Message Prioritization should follow the Messaging Priority Matrix specified below:

MESSAGING PRIORITY MATRIX

Turnpike Message Priority	PennDOT Message Priority														
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	No M
T1	2Φ	2Φ	2Φ	T2	T2	T2	T1	n/a	T1	T1	T1	T1	T1	T1	T1
T2	2Φ	2Φ	2Φ	T2	T2	T2	T2	n/a	T2	T2	T2	T1	T2	T2	T2
T3	2Φ	2Φ	2Φ	T3	T3	T3	T3	n/a	T3	T3	T3	T2	T3	T3	T3
T4	P1	P2	P3	2Φ	T4	T4	T4	n/a	T4	T4	T4	T3	T4	T4	T4
T5	P1	P2	P3	P4	TPM	T5	T5	n/a	T5	T5	T5	T4	T5	T5	T5
T6	P1	P2	P3	P4	P5	2Φ	T6	n/a	T6	T6	T6	T5	T6	T6	T6
T7	P1	P2	P3	P4	P5	P6	TPM	n/a	T7	T7	T7	T6	T7	T7	T7
T8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
T9	P1	P2	P3	P4	P5	P6	P7	n/a	2Φ	T8	T9	T9	T9	T9	T9
T10	P1	P2	P3	P4	P5	P6	P7	n/a	P9	2Φ	T10	T10	T10	T10	T10
T11	P1	P2	P3	P4	P5	P6	P7	n/a	P9	P10	2Φ	T10	T11	T11	T11
T12	P1	P2	P3	P4	P5	P6	P7	n/a	P9	P10	P11	2Φ	T12	T12	T12
T13	P1	P2	P3	P4	P5	P6	P7	n/a	P9	P10	P11	P12	O13	O13	O13
T14	P1	P2	P3	P4	P5	P6	P7	n/a	P9	P10	P11	P12	O13	O14	O14
No M	P1	P2	P3	P4	P5	P6	P7	n/a	P9	P10	P11	P12	O13	O14	None

Legend:

T Turnpike P PennDOT

Abbreviation	Message
T1/P1	Override All / Automated Queue Protection
T2/P2	Turnpike / PennDOT Full Road Closure (Within district, neighboring district, toll authority or no entry message)
T2/P2	Turnpike / PennDOT Roadway Restriction (Lane, vehicle and/or speed restriction)
T3/P3	Turnpike / PennDOT Emergency Destination Guidance
T4/P4	Turnpike / PennDOT Amber Alerts
T5/P5	Turnpike / PennDOT Congestion and Construction without lane closures
T6/P6	Turnpike / PennDOT Weather Conditions (Winter weather messages, other weather conditions)
T7/P7	Turnpike / PennDOT Travel Times
T8/P8	Turnpike / PennDOT Special Events
T9/P9	Turnpike / PennDOT Future / Planned Events (Future road work, impending severe weather)
T10/P10	Turnpike / PennDOT Scheduled Safety Messages
T11/P11	Turnpike / PennDOT Travel Plaza Messages
T12/P12	Turnpike / PennDOT Sign Testing
No M	No Message to be Displayed
2Φ	2 Phase Message – Phase 1 Turnpike Message / Phase 2 PennDOT Message (**THESE MESSAGES MUST BE COORDINATED BETWEEN PENNDOT AND TURNPIKE**)
TPM	If the messages are the same for both the Turnpike and PennDOT, then only a single message will be displayed. If there are different messages for each agency, then a two-phase message will be used.
O13 & O14	Agency with Operational Control Testing
None	No Message Displayed
n/a	No travel times will be displayed on the pre-entry DMS for either agency

- **<u>Exceptions</u>**
  - Priority 2 messages (Full Closure Detours) by one agency and Priority 3 messages (Roadway Restrictions) by the other agency are considered the same priority and two-phase messages will be used. This exception does not mean that a Priority 2 message and a Priority 3 message by a single agency can be displayed as a two-phase message. Both PennDOT and the Turnpike must coordinate the messages when a two-phase message is to be used.
  - If a message requested by one agency will also be displayed by the operating agency, then only one message will be displayed. This could happen in the case of Priority 4 messages (Amber Alert) or some Priority 6 messages (Weather Condition). If the messages are different, then a two-phase message may be used.
  - The agency with operational control may post Priority 7 messages (Automated ITS Messages - Travel Times) on the signs, subject to the conditions outlined in Section 2.0 of the Operating Standards.
  - Only the agency with operational control will post Priority 12 messages (Sign Testing).

Color Preferences on small CMS	• On small CMS, ▪ Turnpike messages – Green background with white lettering on the top line of display. Green specifications are RGB 0, 128, 60. See Figure 3 below. ▪ PennDOT messages – Blue background with white lettering on the top line of display. Blue Specifications is PMS Blue 281 (RGB 0, 32, 91). See Figure 4 below. ▪ Amber messages should be used if color is not available.
Criteria	**Requirements**
Message Structure and Phasing on Turnpike CMS	• Route identification shields will be used on the left side of the messages and text on the right side. If the CMS is not large enough to properly display both shields and text, naming of the roadway will be used instead, such as (PA TPK, I-80 and I-283). • A two-phase message will alternate the Turnpike message with the PennDOT message.

Appendix D – CMS Catalog

Below is the internal access link on the PennDOT P: Drive to the Pennsylvania Department of Transportation CMS Catalog, Standard Safety Message Calendar and the FHWA Safety Calendar: P:\BOMO\Traffic Systems and Performance Section

Below is the link to the Pennsylvania Department of Transportation TMC Portal page where information on the CMS Catalog and the most up to date safety calendar and safety initiatives: https://pagov.sharepoint.com/sites/pd-tmcportal

Priority 2: Full Road Closure

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
Closures	**Roadway**	**Proximity**					
Ramps Closed HAR	Feeder Route(s)	Feeder routes that have HAR availability in the region of closure	ALL ON-RAMPS CLOSED NO RE-ENTRY TUNE RADIO TO XXXX AM		ALL ON-RAMPS CLOSED	TUNE RADIO TO XXXX AM		
Interstate/Expy Closed (On Route)	Core Roadway Network	Specified route leading up to road closure and also on Feeder routes in the area of the closure.	I-XX NB CLOSED FROM EXIT XXX TO XXX FOLLOW BLUE DETOUR		I-XX NB CLOSED EX XX-XX	FOLLOW BLUE DETOUR		
Interstate Closed (Intersecting route with detour)	Feeder Route(s)	Specified route before the incident and any Feeder route boards when it would connect to specified route closure	I-XX NB CLOSED FOLLOW US-XX TO EXIT XX		I-XX NB CLOSED	FOLLOW US-XX TO EX XX		
Post Congestion	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route(s) should be displayed after an incident is cleared	I-XX INCIDENT CLEARED	WATCH FOR RESIDUAL CONGESTION	I-XX INCIDENT CLEARED	EXPECT RESIDUAL DELAYS	INCIDENT CLEARED	WATCH FOR RESIDUAL CONGESTION

XX- REPLACE WITH DESIRED INTERSTATE/ROUTE # OR EXIT #
XXXX: Enter radio frequency

Priority 3: Roadway Restriction

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
Lane Restrictions	**Roadway**	**Proximity**					
Ahead Merge	Core Roadway Network Route	Specific area of Core Roadway Network route where the lane closure exists. If specific lane of closure is know it should be posted.	DEBRIS ON ROAD 1 LANE CLOSED 10 MILES AHEAD		DEBRIS ON ROAD	1 LANE CLOSED 10 MI AHD		
Ahead Delay	Core Roadway Network Route	Area of Core Roadway Network route where the lane closure exists	RIGHT 2 LANES CLOSED 10 MILES AHEAD	TRAVEL TIME TO I-XX 12 MI 38 MIN		RIGHT LN CLOSED 10 MI AHD	I-XX 12 MI 38 MIN		
Before Location	Core Roadway Network and Feeder Route(s)	Before the exit on the specified route where the incident occurred.	INCIDENT BEFORE EXIT XX LEFT LANE CLOSED		INCIDENT BEFORE EXIT XX	LEFT LANE CLOSED		
At Location	Core Roadway Network and Feeder Route(s)	Area near specified route near the location of the incident. Only put lane closure on boards closest to the incident to assist with merging issues	INCIDENT AT EXIT XX RIGHT LANE CLOSED		INCIDENT AT EXIT XX	RIGHT LANE CLOSED		
RAMP Exit Closure	Core Roadway Network Route	Specified route near location of the incident. Motorists should be given advanced warning on that specified route.	RAMP CLOSURE I-XX EXIT XX USE ALTERNATE ROUTE		RAMP CLOSURE EXIT XX	USE ALT ROUTE	EXIT XX RAMP CLOSED USE ALTERNATE ROUTE	
Post Congestion	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route(s) should be displayed after an incident is cleared	I-XX INCIDENT CLEARED	WATCH FOR RESIDUAL CONGESTION	I-XX INCIDENT CLEARED	EXPECT RESIDUAL DELAYS	INCIDENT CLEARED	WATCH FOR RESIDUAL CONGESTION

XX- REPLACE WITH DESIRED INTERSTATE/ROUTE # OR EXIT #

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
Priority 3: Roadway Restriction							
ACTIVE ROADWORK	**Roadway**	**Proximity**					
Active Road Work	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	LEFT LANE CLOSED 1/2 MILE MERGE RIGHT		LT LANE CLOSED 1/2 MILE / MERGE RIGHT		
Active Road Work	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	LANES SHIFT STAY IN LANE		LANES SHIFT / STAY IN LANE		
Active Road Work	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	ROAD CLOSED 1/2 MILE FOLLOW DETOUR ROUTE		ROAD CLOSED 1/2 MILE / FOLLOW DETOUR ROUTE		
Active Road Work	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	EXIT XX CLOSED FOLLOW POSTED DETOUR		EXIT XX CLOSED / FOLLOW POSTED DETOUR		
Active Road Work	Core Roadway Network and Feeder Route(s)	Area of Core Roadway Network or Feeder route where work is occuring. Posted on boards entering area of the impacted route(s)	FLAGGER AHEAD BE PREPARED TO STOP		FLAGGER AHEAD / BE PREPARED TO STOP		
Active Road Work	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route. Operation will likely extend miles so multiple boards may be needed	LINE PAINTING IN AREA WATCH FOR WET PAINT		LINE PAINTING IN AREA / WATCH 4 WET PAINT		
Active Road Work	Core Roadway Network and Feeder Route(s)	Area of Core Roadway Network or Feeder route.	TEMPORARY SIGNAL 1 MILE AHEAD		TEMP SIGNAL 1 MI AHD / BE PREPARED TO STOP		
Active Road Work	Core Roadway Network and Feeder Route(s)	Area of Core Roadway Network or Feeder route where work or incident is..	MERGING TRAFFIC 1 MILE AHEAD STAY IN LANE		MERGING TRAFFIC 1 MI AHD / STAY IN LANE		
Active Road Work	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	MERGING TRAFFIC 1 MILE AHEAD	THROUGH TRAFFIC KEEP LEFT	MERGING TRAFFIC 1 MI AHD / THROUGH TRAFFIC KEEP LT		
Active Road Work	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route.	ROLLING LANE CLOSURES EXIT XX - XX	WATCH 4 STOPPED TRAFFIC	ROLLING LANE CLOSURES / EXITS XX - XX		
Active Road Work	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	ROLLING LEFT LANE CLOSURES NEXT 10 MILES	KEEP RIGHT	ROLLING LEFT LN CLOSURES / NEXT 10 MILES		
Active Road Work	Core Roadway Network Route	Region of Core Roadway Network route. Posted on boards entering area of the impacted route(s)	SHOULDER WORK AT EXIT XX		SHOULDER WORK AT EXIT XX		
Active Road Work	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	USE BOTH LANES TO MERGER TAKE YOUR TURN		USE BOTH LANES TO MERGE / TAKE YOUR TURN		
Active Road Work	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	MOWER AHEAD NEXT 10 MILES USE CAUTION		MOWER AHEAD / NEXT 10 MILES		

Application	Procedure of Lighting of CMS		Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
Priority 3: Roadway Restriction								
Active Road Work	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	CONSTRUCTION ENTRANCE 1/4 MILE	TRUCKS ENTERING HIGHWAY	CONST ENTRANCE 1/4 MILE	TRUCKS ENTERING HIWY		
Active Road Work	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	ROUGH ROAD SURFACE NEXT 3 MILES		ROUGH ROAD SURFACE	NEXT 3 MILES		
Active Road Work	Core Roadway Network and Feeder Route(s)	Area of Core Roadway Network or Feeder route where worki is taking place. Boards leading up to area should be utilized.	FRESH OIL & CHIPS NEXT 2 MILES		FRESH OIL & CHIPS	NEXT 2 MILES		
Active Road Work	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route where there are multiple lanes close. Should be posted in advance of work.	ROADWORK NEAR I-XX RIGHT 2 LANES CLOSED	RIGHT 2 LANES CLOSED	ROADWORK NEAR I-XX	RIGHT 2 LANES CLOSED		
Active Road Work	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route.	I-XX NORTHBOUND EXITS XX - XX CLOSED	TAKE I-XX N EXIT XX	I-XX N EXITS XX-XX CLOSED	TAKE I-XX N EXIT XX		
Active Road Work	Core Roadway Network and Feeder Route(s)	Area of Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	2 LEFT LANES CLOSED AFTER I-XX	AFTER I-XX	2 LEFT LANES CLOSED	PAST I-XX		
Road Work At Area	Core Roadway Network and Feeder Route(s)	Area of Core Roadway Network and Feeder route(s) where road work is taking place. If board is on Feeder route a route name and direction would be needed	ROAD WORK I-XX SOUTH EXIT XX USE CAUTION		ROAD WORK 1/2 MILE	WATCH FOR WORKERS		
Road Work Between Areas	Core Roadway Network and Feeder Route(s)	Area around the Core Roadway Network or Feeder route(s). If incident/roadwork is on a Feeder route exit # could be replaced by road names.	ROAD WORK BETWEEN EXIT XX AND EXIT XX	STAY ALERT EXPECT DELAYS	ROAD WORK 5 MI AHD	WATCH 4 STOPPED VEHICLES		
Work Crew	Core Roadway Network and Feeder Route(s)	Area of Core Roadway Network or Feeder route(s) in which any work crew may have an operation Not primary boards for work zone.	WORK CREW AFTER PA-XX USE CAUTION		WORK CREW AHEAD	USE CAUTION	WORK CREW AFTER 252 USE CAUTION	
Work Crew Travel Time	Core Roadway Network and Feeder Route(s)	Area of Core Roadway Network or Feeder route(s) in which any work crew may have an operation. Not primary bpoards for work zone.	WORK CREW AFTER PA-XX USE CAUTION	TRAVEL TIME AHEAD TO I-XX 15 MI 17 MIN	WORK CREW AHEAD	USE CAUTION	WORK CREW AFTER 252 USE CAUTION	

XX- REPLACE WITH DESIRED INTERSTATE/ROUTE # OR EXIT #

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
Priority 4: Queue Protection							
Queue Protection	**Roadway**	**Proximity**					
Congestion Delays Ahead	Core Roadway Network and Feeder Route(s)	Message shall be displayed on either or both the Core Roadway Network and Feeder routes before the location of the incident for non-recurring congestion.	CONGESTION 3 MILES AHEAD BE PREPARED TO STOP		CONG TRAFFIC IN 3 MI	PREPARE TO STOP	
Congestion Delays Ahead	Core Roadway Network and Feeder Route(s)	Area of both Core Roadway Network and Feeder route depending on location of the incident.	CONGESTION 10 MILES AHEAD	CONSIDER ALTERNATIVE ROUTE	CONG TRAFFIC 10 MI AHD	WATCH 4 STOPPED VEHICLES	
Specific Route	Core Roadway Network and Feeder Route(s)	Area of Core Roadway Network and Feeder route(s) that may have non-recurring heavy congestion due to an incident or just high volume traffic	HEAVY CONGESTION I-XX NORTH EXPECT DELAYS	CONSIDER ALTERNATE Route	CONG TRAFFIC I-XX N	WATCH 4 STOPPED VEHICLES	HEAVY CONGESTION NORTH EXPECT DELAYS
Approaching Incident	Core Roadway Network and Feeder Route(s)	Area of Core Roadway Network route prior to reaching the specified tunnel tunnel	INCIDENT APPROACHING TUNNEL	EXPECT STOPPED TRAFFIC	INCIDENT 5 MI AHD	PREPARE TO STOP	
Post Congestion	Core Roadway Network and Feeder Route(s)	Region of Core Roadway Network or Feeder route(s) should be displayed after an incident is cleared	I-XX INCIDENT CLEARED	WATCH FOR RESIDUAL CONGESTION	I-XX INCIDENT CLEARED	EXPECT RESIDUAL DELAYS	INCIDENT CLEARED	WATCH FOR RESIDUAL CONGESTION
New Pattern	Core Roadway Network and Feeder Route(s)	Area of Core Roadway Network or Feeder route(s) near areas that have new traffic patterns due to changing road work or an incident	NEW TRAFFIC PATTERN STAY ALERT		NEW TRAFFIC PATTERN	STAY ALERT		

XX- REPLACE WITH DESIRED INTERSTATE/ROUTE # OR EXIT #

Application	Procedure of Lighting of CMS		Permanent Full Size Single Color CMS		Portable CMS		Permanent Full Color CMS	
			Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2
Priority 5: Active Emergency/ Weather Restrictions								
SPEED RESTRICTION - 45 MPH COMMERCIAL VEHICLES RIGHT LANE ONLY	**Roadway**	**Proximity**						
Active 45 MPH Right Lane Only	Core Roadway Network Route(s)	Core Roadway Network where speed restrictions and CMV right lane only are enacted	REDUCED SPEED 45 MPH COMMERCIAL VEHICLES RIGHT LANE ONLY		REDUCED SPEED 45 MPH	CMV RIGHT LANE ONLY		
Active 45 MPH Right Lane Only	Feeder Route(s)	Feeder route(s) with speed restriction and CMV right lane only are enacted	REDUCED SPEED LIMIT 45 MPH I-XX AND I-XX	COMMERCIAL VEHICLES RIGHT LANE ONLY I-XX AND I-XX	45 MPH ON I-XX	CMV RIGHT LANE ONLY		
XX- REPLACE WITH DESIRED INTERSTATE/ROUTE #								
TIER 1: NO EMPTY TRAILERS	**Roadway**	**Proximity**						
Active	Core Roadway Network Route(s)	Core Roadway Network where empty commercial vehicles are restricted	NO EMPTY COMMERCIAL VEHICLES		NO EMPTY CMV			
Active	Feeder Routes	Feeder route(s) where empty commercial vehicles on specific route are restricted	NO EMPTY COMMERCIAL VEHICLES I-XX AND I-XX	REDUCED SPEED 45 MPH COMMERCIAL VEHICLES RIGHT LANE ONLY	NO EMPTY CMV ON I-XX	45 MPH CMV RIGHT LANE ONLY		
Active with 45 MPH Right Lane Only	Core Roadway Network Route(s)	Core Roadway Network where an empty commercial vehicles are restricted.	NO EMPTY COMMERCIAL VEHICLES	REDUCED SPEED 45 MPH COMMERCIAL VEHICLES RIGHT LANE ONLY	NO EMPTY CMV	45 MPH CMV RIGHT LANE ONLY		
XX- REPLACE WITH DESIRED INTERSTATE/ROUTE #								
TIER 2: NO EMPTY OR LOADED DOUBLE COMMERCIAL VEHICLES	**Roadway**	**Proximity**						
Active	Core Roadway Network Route(s)	Core Roadway Network where no empty/loaded double trailers are restricted.	NO EMPTY TRAILERS OR LOADED DOUBLES		NO EMPTY OR LOADED DOUBLES			
Active	Feeder Route(s)	Feeder route(s) with empty/loaded doubles trailer restriction on a specific route.	NO EMPTY TRAILERS OR LOADED DOUBLES ON I-XX		NO EMPTY OR LOADED DOUBLES	ON I-XX		
Active with 45 MPH Right Lane Only	Core Roadway Network Route(s) and Feeder Route(s)	Core Roadway Network and Feeder route(s) with empty/loaded doubles trailer restrictions and speed restriction.	NO EMPTY TRAILERS OR LOADED DOUBLES	REDUCED SPEED 45 MPH COMMERCIAL VEHICLES RIGHT LANE ONLY	NO EMPTY OR LOADED DOUBLES	45 MPH CMV RIGHT LANE ONLY		
Active with 45 MPH Right Lane Only	Core Roadway Network Route(s) and Feeder Route(s)	Core Roadway Network and Feeder route(s) with empty/loaded doubles trailer restrictions and speed restriction for specific route.	NO EMPTY TRAILERS OR LOADED DOUBLES ON I-XX	REDUCED SPEED 45 MPH COMMERCIAL VEHICLES RIGHT LANE ONLY				

Due to the amount of Winter Weather Travel Restrictions, all roadways with sequential CMS (e.g. small boards) may need to alternate the second phase message(s) to provide all pertinent restriction information
XX- REPLACE WITH DESIRED INTERSTATE/ROUTE #

Application	Procedure of Lighting of CMS		Permanent Full Size Single Color CMS Phase 1		Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
Priority 5: Active Emergency/ Weather Restrictions								
TIER 3: NO COMMERCIAL VEHICLES EXCEPT THOSE WITH CHAINS ON BOARD	**Roadway**	**Proximity**						
Active	Core Roadway Network Route(s)	Core Roadway Network where empty/loaded double trailers are restricted and chains on board required.	NO EMPTY TRAILERS OR LOADED DOUBLES CHAINS ON BOARD REQ		NO EMPTY OR DOUBLE TRAILERS	CHAINS ON BOARD REQUIRED		
Active	Feeder Route(s)	Feeder route(s) where empty/loaded double trailers are restricted and chains on board are required on a specific route	NO EMPTY TRAILERS OR LOADED DOUBLES ON I-XX CHAINS ON BOARD REQ					
Active with 45 MPH Right Lane Only	Core Roadway Network Route(s)	Core Roadway Network where empty/loaded double trailers are restricted and chains on board are required with a speed restrictions	NO EMPTY TRAILERS OR LOADED DOUBLES CHAINS ON BOARD REQ	REDUCED SPEED 45 MPH COMMERCIAL VEHICLES RIGHT LANE ONLY	NO EMPTY OR DOUBLE TRAILERS	45 MPH CMV RIGHT LANE ONLY		
Active with 45 MPH Right Lane Only	Feeder Route(s)	Feeder route(s) where empty/loaded double trailers are restricted and chains are required with a speed restrictions on a specific route	NO EMPTY TRAILERS OR LOADED DOUBLES ON I-XX CHAINS ON BOARD REQ	REDUCED SPEED 45 MPH COMMERCIAL VEHICLES RIGHT LANE ONLY				

Due to the amount of Winter Weather Travel Restrictions, all roadways with sequential CMS (e.g. small boards) may need to alternate the second phase message(s) to provide all pertinent restriction information
XX- REPLACE WITH DESIRED INTERSTATE/ROUTE #

TIER 4: FULL COMMERCIAL VEHICLE RESTRICTION	Roadway	Proximity						
Active	Core Roadway Network Route(s)	Core Roadway Network where all commercial vehicles are restricted.	NO COMMERCIAL VEHICLES		NO COMM VEHICLES			
Active	Feeder Route(s)	Feeder Route(s) where all commercial vehicles are restricted on a specific route	NO COMMERCIAL VEHICLES ON I-XX		NO CMV ON I-XX			
Active with 45 MPH Right Lane Only	Core Roadway Network Route(s)	Core Roadway Network where all commercial vehicles are restricted with speed restriction	NO COMMERCIAL VEHICLES REDUCED SPEED 45 MPH		NO COMM VEHICLES	REDUCED SPEED 45 MPH		
Active with 45 MPH Right Lane Only	Feeder Route(s)	Feeder routes where all commercial vehicles are restricted with speed restriction on a specific route	NO COMMERCIAL VEHICLES ON I-XX REDUCED SPEED 45 MPH		NO CMV ON I-XX	REDUCED SPEED 45 MPH		

XX- REPLACE WITH DESIRED INTERSTATE/ROUTE #

TIER 5: FULL VEHICLE RESTRICTION/EMERGENCY VEHICLES ONLY	Roadway	Proximity						
Pre-emptive	Core Roadway Network Route(s)	Core Roadway Network route(s) where all vehicles are restricted except Emergency vehicles.	EMERGENCY VEHICLES ONLY (DAY) (TIME) AM/PM		EMERG VEHICLES ONLY			
Active	Feeder Route(s)	Feeder route(s) where all vehicles are restricted except emergency vehicles.	EMERGENCY VEHICLES ONLY ON I-XX		EMERG VEH ONLY I-XX			

XX- REPLACE WITH DESIRED INTERSTATE/ROUTE #

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS		Portable CMS		Permanent Full Color CMS	
		Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2
Priority 6: Amber Alerts							
Amber/MEPA Alert	**Roadway** / **Proximity**						
Amber Alert Detailed No HAR	Core Roadway Network and Feeder Route(s)	These message will be posted on all Core Roadway Network and Feeder routes as determined by the STMC and PSP	AMBER ALERT CALL 911	VEH COLOR (YEAR) MAKE/MODEL State (License Plate #)	AMBER SIGHTING CALL 911	VEH COLOR YEAR/MAKE (PLATE #)		
Amber Alert 511	Core Roadway Network and Feeder Route(s)	These message will be posted on all Core Roadway Network and Feeder routes in the event of a statewide alert	AMBER ALERT TUNE RADIO TO XXXX AM		AMBER ALERT	TUNE RADIO TO XXXX AM		
Amber Alert 511	Core Roadway Network and Feeder Route(s)	These message will be posted on all Core Roadway Network and Feeder routes in the event of a statewide alert	AMBER ALERT FOR INFO CALL 511		AMBER ALERT	FOR INFO CALL 511		
MEPA Detailed No HAR	Core Roadway Network and Feeder Route(s)	These message will be posted on all Core Roadway Network and Feeder routes as determined by the STMC and PSP	MISSING PERSON CALL 911	VEH COLOR (YEAR) MAKE/MODEL STATE (License Plate #)	MISSING PERSON	VEH COLOR YEAR/MAKE (PLATE #)		
MEPA HAR	Core Roadway Network and Feeder Route(s)	These message will be posted on all Core Roadway Network and Feeder routes in the event of a statewide alert	MISSING PERSON TUNE RADIO TO XXXX AM		MISSING PERSON	TUNE RADIO TO XXXX AM		
MEPA 511	Core Roadway Network and Feeder Route(s)	These message will be posted on all Core Roadway Network and Feeder routes in the event of a statewide alert	MISSING PERSON FOR INFO CALL 511		MISSING PERSON	FOR INFO CALL 511		

XXXX: Enter radio frequency

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
PRIORITY 7: Active Weather and Road Conditions							
Pre-emptive and Active Speed & Vehicle Restrictions	**Roadway**	**Proximity**					
Weather Conditon Alerts may vary (i.e., Advisor, Watch or Warning) as per NOAA							
Current Winter Weather	Core Roadway Network(s) and Feeder Route(s)	Core Roadway Network and Feeder Route(s) where weather condition alerts may vary from Advisory, Watch, or Warning as per NOAA	WINTER WEATHER CONDITIONS USE CAUTION		WINTER WEATHER CONDITION	USE CAUTION	
Slippery Roads	Core Roadway Network(s) and Feeder Route(s)	Core Roadway Network and Feeder Route(s) where weather condition alerts may vary from Advisory, Watch, or Warning as per NOAA	WINTER WEATHER CONDITIONS ROADS MAY BE SLIPPERY		WINTER WEATHER CONDITION	ROADS MAY BE SLIPPERY	
Plow Operations	Core Roadway Network(s) and Feeder Route(s)	Core Roadway Network and Feeder Route(s) where weather condition alerts may vary from Advisory, Watch, or Warning as per NOAA	WINTER WEATHER CONDITIONS REDUCE SPEED	BE ALERT FOR PLOW OPERATIONS	WINTER WEATHER CONDITION	WATCH 4 PLOW TRUCKS	
Plow Operations With 45 MPH Speed Restrictions	Core Roadway Network(s) and Feeder Route(s)	Core Roadway Network and Feeder Route(s) where weather condition alerts may vary from Advisory, Watch, or Warning as per NOAA	BE ALERT FOR PLOW OPERATIONS	REDUCED SPEED 45 MPH COMMERCIAL VEHICLES RIGHT LANE ONLY	WATCH 4 PLOW TRUCKS	45 MPH CMV RIGHT LANE ONLY	
Plow Operations	Core Roadway Network(s) and Feeder Route(s)	Core Roadway Network and Feeder Route(s) where weather condition alerts may vary from Advisory, Watch, or Warning as per NOAA	BE ALERT FOR PLOW OPERATIONS		WATCH 4 PLOW TRUCKS		
Whiteout Conditions	Core Roadway Network	Core Roadway Network where whiteout conditions are possible	WHITEOUT CONDITIONS POSSIBLE				
Whiteout Conditions With Speed Restriction/CMV Right Lane only	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder Route(s) where white out conditions are imminent	WHITEOUT CONDITIONS AHEAD REDUCE SPEED	REDUCED SPEED 45 MPH COMMERCIAL VEHICLES RIGHT LANE ONLY	WHITEOUT COND POSSIBLE	45 MPH CMV RIGHT LANE ONLY	
Whiteout Conditions	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder Route(s) where white out conditions are imminent	WHITEOUT CONDITONS AHEAD STAY ALERT				
Snow Squalls	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) where snow squalls may occur	BE ALERT FOR SNOW SQUALLS		BE ALERT FOR SNOW SQUALLS		
Freezing Rain	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) under freezing rain advisor, watch, or warning	FREEZING RAIN ADVISORY USE CAUTION		FREEZING RAIN ADVISORY	USE CAUTION	

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
PRIORITY 7: Active Weather and Road Conditions							
Other Weather	**Roadway**	**Proximity**					
Generic Weather HAR Available	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) where a severe weather warning is put in place. Sever weather could be changed for more specific weather event	SEVERE WEATHER WARNING TUNE RADIO TO XXXX AM		SEVERE WEATHER WARNING	TUNE RADIO TO XXXX AM	
Cross Winds	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) where high wind warnings are put in place	HIGH CROSS WINDS REDUCE SPEED		HIGH CROSS WINDS	REDUCE SPEED	
FOG	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) where fog warnings are put in place	DENSE FOG AHEAD SLOW DOWN STAY ALERT		DENSE FOG AHEAD	SLOW DOWN	
Flooding Location Known	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) area where flooding is occuring.	POSSIBLE ROAD FLOODING NEXT XXXX MILES	REDUCE SPEED AND USE CAUTION	ROAD FLOODING AHEAD	REDUCE SPEED	
Generic Flooding	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) where flooding is occuring. Second Phase could be used to address the specific route(s)	ROADWAY FLOODING POSSIBLE STAY ALERT		ROADWAY FLOODING POSSIBLE	STAY ALERT	
Thunderstorm	Core Roadway Network and Feeder Route(s)	Core Roadway Networkand Feeder route(s) that are in severe thunderstorm warnings	SEVERE THUNDERSTORM WARNING USE CAUTION		SEVERE T-STORM WARNING	USE CAUTION	
No Entry	**Roadway**	**Proximity**					
All Ramps Closed	Feeder route(s) within Core Roadway Network	Feeder routes leading up to Core Roadway Network	ALL ON-RAMPS CLOSED DUE TO WEATHER NO RE-ENTRY		ALL ON-RAMPS CLOSED	NO RE-ENTRY	
Interstate Closed (Intersecting Route No Detour)	Feeder Route(s)	Feeder route(s) that do not have a defined detour	I-XX NB CLOSED EXITS XX-XX USE ALT ROUTE		I-XX CLOSED EX XX-XX	USE ALT ROUTE	81 CLOSED EXITS XX-XX USE ALT ROUTE
Interstate Closed HAR	Feeder Route(s) with HAR availability in region.	Feeder routes in region of the closure with availability to HAR.	I-XX CLOSED DUE TO WEATHER TUNE RADIO TO XXXX AM	FOLLOW (COLOR) DETOUR	I-XX CLOSED	TUNE RADIO TO XXXX AM	81 CLOSED DUE TO WEATHER TUNE RADIO TO XXXX AM	FOLLOW (COLOR) DETOUR

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS		Portable CMS		Permanent Full Color CMS	
		Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2
Priority 8: Automated ITS Messages							
Automated ITS Message	**Roadway**	**Proximity**					
Fog Message	Core Roadway Network and Feeder Route(s)	Feeder route(s) to show travel time to one location from three different routes. Automated messaging only.	DENSE FOG STAY ALERT	LOW VISIBILITY	DENSE FOG LOW VIS	STAY ALERT	
Whiteout Reduce Speeds	Core Roadway Network and Feeder Route(s)	Feeder route(s) that are expecting whiteout conditions due to squalls or blowing snow. Automated messaging only.	BE ALERT FOR WHITEOUT CONDITIONS REDUCE SPEED		WHITE-OUT COND	REDUCE SPEED	
Whiteout Conditions Possible	Core Roadway Network and Feeder Route(s)	Feeder route(s) that are experiencing winter conditions. Automated messaging only.	WINTER WEATHER CONDITIONS USE CAUTION	WHITEOUT CONDITIONS POSSIBLE	WHITEOUT COND POSSIBLE	BE ALERT	

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS		Portable CMS		Permanent Full Color CMS	
		Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2
Priority 9: Special Event							
Special Events	**Roadway**	**Proximity**					
Location Name Exit	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder routes	FLIGHT 93 MEMORIAL USE EXIT XX		FLIGHT 93 MEMORIAL	USE EXIT XX		
Event Name Exit	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder routes	G20 SUMMIT EXIT XX		G20 SUMMIT EXIT XX			
Location Name 2-Phase Message	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder routes	ABC HISTORIC VILLAGE TRAFFIC	FOLLOW US XX EXIT XX 1 MILE AHEAD	HISTORIC VILLAGE TRAFFIC	FOLLOW US XX 1 MILE	HISTORIC VILLAGE TRAFFIC	FOLLOW 30 EXIT XX 1 MILE AHEAD
Event Name HAR Available	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder routes near the event with HAR availability.	CAR SHOW TRAFFIC TUNE RADIO TO XXXX AM		CAR SHOW TRAFFIC	TUNE RADIO TO XXXX AM		
Traffic Direction Arrows	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) to show traffic which lane is necessary for their travel	THRU TRAFFIC ↓ LOCAL TRAFFIC ↓		THRU TRAFFIC LEFT LN	LOCAL TRAFFIC RIGHT LN		

*Use the name of the venue or generic event name (e.g., car show traffic, football traffic)

*TMCs have the discretion to customize the "Traffic Advisory" phase to meet their needs. Examples include "Expect Delays," "Use Caution," closure information, detour information, and travel times

XX- REPLACE WITH DESIRED INTERSTATE/ROUTE # OR EXIT #

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
PRIORITY 10: Future Events-Weather Restrictions							
Pre-emptive and Active Speed and Vehicle Restriction	**Roadway** / **Proximity**						
Forecasted Winter Weather	Core Roadway Network / Core Roadway Network. This message could be changed to any type of weather condition	PREPARE FOR WINTER WEATHER (DAY) AM/PM		WINTER WEATHER FORECAST	(DAY) AM/PM		
Forecasted Winter Weather w/ future vehicle restriction	Core Roadway Network / Core Roadway Network. This message could be changed to any type of weather condition. Use appropriate restriction tier message for phase 2.	WINTER WEATHER FORECAST (DAY) AM/PM	NO EMPTY COMMERCIAL VEHICLES (DAY) (TIME) AM/PM	WINTER WEATHER DAY (AM/PM)	NO EMPTY CMV DAY (AM/PM)		
SPEED RESTRICTION - 45 MPH COMMERCIAL VEHICLES RIGHT LANE ONLY	**Roadway** / **Proximity**						
Pre-emptive	Core Roadway Network / Core Roadway Network and Feeder route(s) when restrictions are in place	REDUCED SPEED 45 MPH CMV RIGHT LANE ONLY (DAY) (TIME) AM/PM					
Pre-emptive	Feeder Route(s) / Core Roadway Network and Feeder route(s). The routes can be changed so that the correct routes can be placed on the board	REDUCED SPEED 45 MPH CMV RIGHT LANE ONLY I-XX (DAY) (TIME) AM/PM		REDUCED SPEED MON 8 AM	CMV RIGHT LANE ONLY MON 8 AM		
XX- REPLACE WITH DESIRED INTERSTATE/ROUTE #							
TIER 1: NO EMPTY TRAILERS	**Roadway** / **Proximity**						
Pre-emptive	Core Roadway Network / Core Roadway Network where an empty trailer vehicle restriction is enacted	NO EMPTY COMMERCIAL VEHICLES (DAY) (TIME) AM/PM		NO EMPTY CMV DAY AM/PM			
Pre-emptive	Feeder Route(s) / Feeder route(s) where an empty trailer vehicle restriction is enacted	NO EMPTY COMMERCIAL VEHICLES ON I-XX (DAY) (TIME) AM/PM		NO EMPTY CMV DAY AM/PM	ON I-XX (DAY) (TIME) PM		
PANEL 2 MAY BE UTILIZED FOR FORCASTED WINTER WEATHER MESSAGES XX- REPLACE WITH DESIRED INTERSTATE/ROUTE #							
TIER 2: NO EMPTY OR LOADED DOUBLE COMMERCIAL VEHICLES	**Roadway** / **Proximity**						
Pre-emptive	Core Roadway Network / Core Roadway Network on specific day and time	NO EMPTY TRAILERS OR LOADED DOUBLES (DAY) (TIME) AM/PM		NO EMPTY OR LOADED DOUBLES	(DAY) AFTER (TIME)		
Pre-emptive	Feeder Route(s) / Core Roadway Network with empty/loaded doubles trailer restrictions	NO EMPTY TRAILERS OR LOADED DOUBLES I-XX (DAY) (TIME) AM/PM		NO EMPTY OR LOADED DOUBLES	ON I-XX AFTER (DAY)(TIME)		
TIER 3: NO COMMERCIAL VEHICLES EXCEPT THOSE WITH CHAINS ON BOARD	**Roadway** / **Proximity**						
Pre-emptive	Core Roadway Network / Core Roadway Network where empty and double trailers are banned and chains are required with a speed restrictions.	NO EMPTY TRAILERS OR LOADED DOUBLES (DAY) (TIME) AM/PM	CHAINS ON BOARD REQUIRED (DAY) (TIME) AM/PM	NO EMPTY OR LOADED DOUBLES	TUE AFTER (DAY)(TIME)		
Pre-emptive	Feeder Route(s) / Feeder Route(s) where empty/loaded double trailers are restricted and chains are required on board	NO EMPTY TRAILERS OR LOADED DOUBLES I-XX (DAY) (TIME) AM/PM	CHAINS ON BOARD REQUIRED ON I-XX (DAY) (TIME) AM/PM	NO EMPTY OR LOADED DOUBLES	ON I-XX TUE AFTER (TIME)		
XX- REPLACE WITH DESIRED INTERSTATE/ROUTE #							

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
PRIORITY 10: Future Events-Weather Restrictions							
TIER 4: FULL COMMERCIAL VEHICLE RESTRICTION	**Roadway** / **Proximity**						
Pre-emptive	Core Roadway Network: Core Roadway Network where all commercial vehicles are restricted	NO COMERCIAL VEHICLES (DAY) (TIME) AM/PM		NO COMM VEHICLES DAY/TIME			
Pre-emptive	Feeder Route(s): Feeder route(s) where all commercial vehicles are restricted	NO COMMERCIAL VEHICLES ON I-XX (DAY) (TIME) AM/PM		NO COMM VEH I-XX DAY/TIME			
XX- REPLACE WITH DESIRED INTERSTATE/ROUTE #							
TIER 5: FULL VEHICLE RESTRICTION/EMERGENCY VEHICLES ONLY	**Roadway** / **Proximity**						
Pre-emptive	Core Roadway Network: Core Roadway Network and Feeder route(s) where all vehicles are restricted except emergency vehicles	EMERGENCY VEHICLES ONLY (DAY) (TIME) AM/PM		EMERG VEH ONLY DAY/TIME			
Pre-emptive	Feeder Route(s): Core Roadway Network and Feeder route(s) where all vehicles are restricted except emergency vehicles	EMERGENCY VEHICLES ONLY ON I-XX (DAY) (TIME) AM/PM		EMERG VEH ONLY I-XX DAY/TIME			
XX- REPLACE WITH DESIRED INTERSTATE/ROUTE #							
Impending Severe Weather	**Roadway** / **Proximity**						
Generic Weather	Core Roadway Network and Feeder Route(s): Core Roadway Network and Feeder routes that will be impacted. Severe Weather could also be replaced with WINTER WEATHER.	SEVERE WEATHER EXPECTED (DAY) (TIME)		SEVERE WEATHER (DAY)(TIME)			
Thunderstorm Watch	Core Roadway Network and Feeder Route(s): Core Roadway Network and Feeder routes that will be impacted	SEVERE THUNDERSTORM WATCH (DAY)(TIME)		SEVERE T-STORM WATCH	USE CAUTION (DAY)(TIME)		
High Winds Watch	Core Roadway Network and Feeder Route(s): Core Roadway Network and Feeder routes that will be impacted	HIGH WIND WATCH (DAY)(TIME)		HIGH WIND WATCH	USE CAUTION (DAY)(TIME)		
Winter Weather Watch	Core Roadway Network and Feeder Route(s): Core Roadway Network and Feeder routes that will be impacted	WINTER WEATHER WATCH (DAY)(TIME)		WINTER WEATHER WATCH	USE CAUTION (DAY)(TIME)		
Winter Watch	Core Roadway Network and Feeder Route(s): Core Roadway Network and Feeder routes that will be impacted with HAR availability	WINTER WEATHER WATCH (DAY)(TIME)		WINTER WEATHER WATCH	USE CAUTION (DAY)(TIME)		

(DAY OF THE WEEK): Enter day of the week (e.g. Monday)
Can Post a maximum of 24 hours in Advance
XXXX: Enter radio frequency

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
PRIORITY 10: Future Events-Weather Restrictions							
Road Work							
More Then One Week In Advance of Work	**Roadway**	**Proximity**					
Planned Road Work	Core Roadway Network	Core Roadway Network route where the work is being done on specific dates (which can be changed) Small board messages included	ROAD WORK PLANNED	7/28/2020 TO 8/9/20	ROAD WORK PLANNED	7/28/2020 TO 8/9/2020		
Planned Road Work	Core Roadway Network	Core Roadway Network before bridge closure. With the specific dates of closure on 2nd phase. Make driver aler if this bridge can be accessed form other routed	BRIDGE TO BE CLOSED	11/11/2020 TO 3/17/2021	BRIDGE TO BE CLOSED	11/11/2020 TO 3/17/21		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder routes. Message is for nightwork but can be changed to address other work and times.	I-81 NORTHBOUND TO BE PAVED	NIGHTWORK BEGINS 9/2/2020	ROAD TO BE PAVED	BEGINS EVENING 9/2/2020		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder routes for specific time and dates of roadwork.	ROAD WORK US-22 ON 9/2/2020 9 PM - 5 AM		ROADWORK US-22 9/2/2020	9 PM - 5 PM		
Planned Road Work	Core Roadway Network	Core Roadway Network route for specific time and dates of roadwork. No defined detour but second phase could be replaced with known detour	ROAD WORK 9/2/2020 9 PM - 5 AM	CONSIDER ALT ROUTE	ROADWORK 9/2/2020 9 PM - 5 AM	CONSIDER ALT ROUTE		
XX- REPLACE WITH DESIRED INTERSTATE/ROUTE #							
Less Then One Week In Advance of Work	**Roadway**	**Proximity**					
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route. Shall be posted in the week the work will happen. If detour is known it can be posted in 2nd phase	ROADWORK BEGINS FRI 9 PM	CONSIDER ALTERNATE ROUTE	ROADWORK BEGINS FRI 9 PM	CONSIDER ALT ROUTE		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Shall be posted on boards surrounding the bridge showing specific time of work	BRIDGE TO BE CLOSED	TONIGHT 9 PM TO 5 AM	BRIDGE TO BE CLOSED	TONIGHT 9 PM TO 5 AM		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	ROAD WORK BEGINS	MONDAY 9 AM	ROAD WORK BEGINS	MONDAY 9 AM		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	ROAD PAVING TUE 9 PM	EXPECT DELAYS	ROAD PAVING TUE 9 PM			
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area for specific dates. No defined detour but 2nd phase could be replaced with known detour	ROADWORK TO START WED AM	CONSIDER ALTERNATE ROUTE	ROADWORK TO START WED AM			
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of lane closure.	LANE CLOSURES PLANNED	TONIGHT 9 PM TO 5 AM	LANE CLOSURES PLANNED	TONIGHT 9 PM TO 5 AM		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering road closure prior to the day of work	ROAD TO BE CLOSED	FRIDAY 10 PM	ROAD TO BE CLOSED	FRIDAY 10 PM		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route before work begins.	DAILY LANE CLOSURES	MONDAY THRU FRIDAY 9 AM - 2 PM	DAILY LANE CLOSURES	MON-FRI 9 AM - 2 PM		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	ROADWORK BEGINS MONDAY	CONSIDER ALTERNATE ROUTE	ROADWORK BEGINS MONDAY	CONSIDER ALT ROUTE		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	ROADWORK TUESDAY - THURSDAY NIGHTS	NIGHT WORK 9 PM - 5 AM	ROADWORK TUE-THUR NIGHTS	NIGHT WORK 9 AM - 5 AM		

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS		Portable CMS		Permanent Full Color CMS	
		Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2
PRIORITY 10: Future Events-Weather Restrictions							
Future Road Work	**Roadway**	**Proximity**					
Lane Closure Date or Day/Time	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder routes on which the closures will be. More boards could be lit depending on the traffic that travels the route	LANE CLOSURES SCHEDULED MONDAY 9 AM to 5 PM	EXPECT DELAYS	LANE CLOSURES PLANNED	MONDAY 9 AM TO 5 PM	
Road Closure Date or Day/Time With Detour	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route closure. The detour route name can be displayed on phase 2.	ROAD WILL BE CLOSED MONDAY 9 AM TO 5 PM DETOUR WILL BE POSTED		ROAD CLOSED MONDAY	DETOUR WILL BE POSTED	
Road Work Date or Day/Time	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder routes depending on where the road work is located. This may effect multipl routes so the routes could be displayed on phase 2	ROAD WORK PLANNED MONDAY 9 AM to 5 PM		ROAD WORK PLANNED	MONDAY 9 AM TO 5 PM	
Road Work Date or Day/Time HAR Available	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder routes depending on where the road work is located. This area should have HAR availability	ROAD WORK PLANNED MONDAY TUNE RADIO TO XXXX AM		ROAD WORK PLANNED	TUNE RADIO TO XXXX AM	

Refer to Guidelines
XXXX: Enter route number, radio frequency, exit number, and number of miles

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
PRIORITY 11: TOLL/PLAZA MESSAGES AND SCHEDULED SAFETY MESSAGES- *Travel Plaza messages can be used for both Welcome Centers and Rest Areas.							
Toll/Plaza and SSM	**Roadway**	**Proximity**					
Plaza Service Information	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) near welcome centers	LIMITED SERVICES AT WELCOME CENTER	NO RUNNING WATER TUNE TO XXXX AM	WELCOME CENTER	LIMITED SERVICES		
Plaza Services No Fuel	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) near Plaza	NO DIESEL FUEL AT SOMERSET PLAZA NEXT PLAZA 40 MILES		SOMERSET NO DIESEL	NEXT PLAZA 40 MILES		
Plaza Closed	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) near Plaza	SOMERSET PLAZA CLOSED NEXT PLAZA 40 MILES		SOMERSET PLAZA CLOSED	NEXT PLAZA 40 MILES		
New Cash Toll Rates	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) near Toll entrance(s) and on impacted route.	NEW CASH TOLL RATES NOW IN EFFECT		NEW TOLL RATES	NOW IN EFFECT		
New Toll Rate Increase Future Start Date	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) near Toll entrnce(s) and on impacted route	TOLL INCREASE BEGINS JUNE 1 AT 8 AM		TOLL INCREASE	BEGINS 8 AM JUNE 1		
Congestion Ahead In Toll Lanes	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) near tolls	HEAVY TRAFFIC APPROACHING TOLLS AHEAD	EZ PASS TRAFFIC STAY RIGHT	HEAVY TRAFFIC AT TOLLS	EZ PASS STAY RIGHT		
EZ Pass/Express Lane Closure	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) with HAR availability	EZ PASS EXPRESS LANES CLOSED TUNE RADIO TO XXXX AM		EZ PASS LANES CLOSED	TUNE RADIO TO XXXX AM		
EZ Pass Lane Closed	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s)	EZ PASS LANES CLOSED	ALL TRAFFIC KEEP LEFT	EZ PASS LANES CLOSED	KEEP LEFT		
EZ Pass Express Lane Closed	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s)	MID-COUNTY TOLLS EZ PASS EXPRESS LANES CLOSED	ALL TRAFFIC KEEP LEFT	EZ PASS LANES CLOSED	KEEP LEFT		
SCHEDULED SAFETY MESSAGES	**Roadway**	**Proximity**					
Occupant Protection Message	Core Roadway Network and Feeder Route(s)	Shall be posted on any board when warranted by the SSM calendar. This message will only be displayed when there is not a higher ranking priority message.	BUCKLE UP SEAT BELTS SAVE LIVES	CLICK IT OR TICKET	CLICK IT OR TICKET	DRIVE SAFELY		
Occupant Protection Message	Core Roadway Network and Feeder Route(s)	**The numerical value of this will change every year. An email will be sent out with updated number annually.**	CLICK IT OR TICKET	LAST YEAR 24,000 SEAT BELT TICKETS IN PA				

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
PRIORITY 11: TOLL/PLAZA MESSAGES AND SCHEDULED SAFETY MESSAGES- *Travel Plaza messages can be used for both Welcome Centers and Rest Areas.							
Toll/Plaza and SSM	**Roadway**	**Proximity**					
Occupant Protection Message	Core Roadway Network and Feeder Route(s)	**The numerical value of this will change every year. An email will be sent out with updated number annually.**	CLICK IT OR TICKET	LAST YEAR 24,000 SEAT BELT TICKETS IN PA			
Occupant Protection Message	Core Roadway Network and Feeder Route(s)	**The numerical value of this will change every year. An email will be sent out with updated number annually.**	JUST BUCKLE UP	LAST YEAR 408 UNBUCKLED DEATHS IN PA			
Impaired Driving Message	Core Roadway Network and Feeder Route(s)	Shall be posted on any board when warrented by the SSM calendar. This message shall only be posted when there is not a higher ranking priority message.	DON'T DRIVE IMPAIRED	DRIVE SOBER OR GET PULLED OVER	DRIVE SOBER	OR GET PULLED OVER	
Impaired Driving Message	Core Roadway Network and Feeder Route(s)	**The numerical value of this will change every year. An email will be sent out with updated number annually.**	DRIVER SOBER OR GET PULLED OVER	LAST YEAR 53,000 DUI ARRESTS IN PA			
Impaired Driving Message	Core Roadway Network and Feeder Route(s)	**.The numerical value of this will change every year. An email will be sent out with updated number annually.**	DRIVE SOBER OR GET PULLED OVER	LAST YEAR 341 DEATHS FROM DUI IN PA			
Impaired Driving Message	Core Roadway Network and Feeder Route(s)	**The numerical value of this will change every year. An email will be sent out with updated number annually.**	DRIVE SOBER OR GET PULLED OVER	LAST YEAR 13,000 DUI CRASHES IN PA			
Impaired Driving Message	Core Roadway Network and Feeder Route(s)	Shall be posted on any board when warrented by the SSM calendar. This message shall only be posted when there is not a higher ranking priority message.	BE A HERO BE A DESIGNATED DRIVER	DRIVE SOBER OR GET PULLED OVER			
Aggressive Driving Message	Core Roadway Network and Feeder Route(s)	Shall be posted on any board when warrented by the SSM calendar. This message shall only be posted when there is not a higher ranking priority message.	SLOW DOWN SAVE A LIFE	AVOID AGGRESSIVE DRIVING	SLOW DOWN	SAVE A LIFE	
Motorcycle Safety Message	Core Roadway Network and Feeder Route(s)	Shall be posted on any board when warrented by the SSM calendar. This message shall only be posted when there is not a higher ranking priority message.	RIDE SAFELY, SOBER LIVE FREE RIDE ALIVE	WATCH FOR MOTORCYCLES DRIVE SAFELY	DON'T RIDE IMPAIRED	MCYCLE SAFETY MONTH	
Motorcycle Safety Message	Core Roadway Network and Feeder Route(s)	Shall be posted on any board when warrented by the SSM calendar. This message shall only be posted when there is not a higher ranking priority message.			WATCH 4 MOTOR CYCLES	DRIVE SAFELY	
Drive Right Law Message	Core Roadway Network and Feeder Route(s)	Shall be posted on any board when warrented by the SSM calendar. This message shall only be posted when there is not a higher ranking priority message.	STAY RIGHT PASS LEFT	IT'S THE LAW	STAY RGT PASS LFT	IT'S THE LAW	
Steer Clear Law	Core Roadway Network and Feeder Route(s)	Shall be posted on any board when warrented by the SSM calendar. This message shall only be posted when there is not a higher ranking priority message.	STEER CLEAR OF EMERGENCY RESPONDERS	IT'S THE LAW			

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS		Portable CMS		Permanent Full Color CMS	
		Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2
PRIORITY 11: TOLL/PLAZA MESSAGES AND SCHEDULED SAFETY MESSAGES- *Travel Plaza messages can be used for both Welcome Centers and Rest Areas.							
Toll/Plaza and SSM	**Roadway**	**Proximity**					
Steer Clear Law	Core Roadway Network and Feeder Route(s)	Shall be posted on any board when warrented by the SSM calendar. This message shall only be posted when there is not a higher ranking priority message.	STEER CLEAR OF HIGHWAY WORKERS	IT'S THE LAW				
Work Zone Safety Message	Core Roadway Network and Feeder Route(s)	Shall be posted on any board when warrented by the SSM calendar. This message shall only be posted when there is not a higher ranking priority message.	SAVE A LIFE	SLOW DOWN IN WORK ZONES	SLOW DOWN	IN WORK ZONES		
Pothole Repair Message	Core Roadway Network and Feeder Route(s)	Shall be posted on any board when warrented by the SSM calendar. This message shall only be posted when there is not a higher ranking priority message.	REGIONAL POTHOLE REPAIRS	USE CAUTION IN WORK ZONES	REGIONAL POTHOLE REPAIRS	WATCH 4 WORK ZONES		
Bicycle Safety Message	Core Roadway Network and Feeder Route(s)	Shall be posted on any board when warrented by the SSM calendar. This message shall only be posted when there is not a higher ranking priority message.	WATCH FOR BICYCLES	SHARE THE ROAD	PASSING A CYCLIST	ALLOW 4 FEET PA LAW		
Winter Safety Message	Core Roadway Network and Feeder Route(s)	Shall be posted on any board when warrented by the SSM calendar. This message shall only be posted when there is not a higher ranking priority message.	CLEAR VEHICLES OF SNOW AND ICE BEFORE TRAVELING	IT'S THE LAW	CLEAR VEHICLE OF SNOW	IT'S THE LAW		
Wipers On Safety Message	Core Roadway Network and Feeder Route(s)	Shall be posted on any board when warrented by the SSM calendar. This message shall only be posted when there is not a higher ranking priority message.	WIPERS ON HEADLIGHTS ON	IT'S THE LAW				

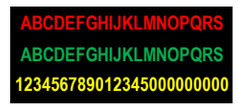
Additional approved SSM may be found on the SSM calendar and associated guidance

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
PRIORITY 12: TRAVEL TIMES							
Travel Times	**Roadway**	**Proximity**					
Travel Time To Destination Using Specific Route	Core Roadway Network and Feeder Route(s)	Core Roadway Networkand Feeder route(s) where the travel time are being displayed.	TRAVEL TIME VIA I-83 TO I-81 4 MI 12 MIN		I-81 4 MI 12 MIN		TRAVEL TIME AHEAD TO (XXXX) 4 MI 12 MIN	
Travel Time Ahead	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route(s) depending of the location of the boards and what routes are beign depicted	TRAVEL TIME AHEAD I-83 TO I-81 4 MI 12 MIN		I-81 4 MI 12 MIN		TRAVEL TIME AHEAD 83 TO 81 4 MI 12 MIN	
Travel Time To	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route(s) depending of the location of the boards and what routes are beign depicted	TRAVEL TIME TO US 30 5 MI 8 MIN I-83 12 MI 18 MIN		US 30 5 MI 8 MIN	I-83 12 MI 18 MIN	AVG TRAVEL TIME TO 30 5 MI 8 MIN 83 12 MI 18 MIN	
Travel Time 2-Phase Message	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route(s) to show travel time to one location from three different routes	TRAVEL TIME TO Route XXXX	I-83 - 8 MIN US 30 - 10 MIN I-81 - 12 MIN	I-95 5 MI 8 MIN	US 1 8 MI 10 MIN		83 8 MIN 30 10 MIN 81 12 MIN
Travel Time To Full Matrix color use of Interstate Shields	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) where the travel times can be displayed in either amber or full matrix color.	TRAVEL TIME TO US 30 5 MI 8 MIN I-83 12 MI 18 MIN		US 30 5 MI 8 MIN	I-83 12 MI 18 MIN	TRAVEL TIME TO 30 5 MI 8 MIN 81 12 MI 18 MIN	
Dual Travel Times To Destination With Shields	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) where the travel times can be displayed in either amber or full matrix color.					TIME TO (DESTINATION) VIA I-90 32 MIN VIA I-84 18 MIN	
Travel Time To Specific	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) where the travel time are being displayed.	TIME TO PORTAGE VIA I-90 13 MIN VIA I-84 32 MIN				TIME TO PORTAGE VIA I-90 15 MIN VIA I-84 37 MIN	
Travel Time To In Color Full Matrix color use of Interstate Shields	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route(s) where the travel times can be displayed in either amber or full matrix color.	TIME TO XXXX VIA I-84 20 MIN VIA I-84 34 MIN				TIME TO PORTAGE VIA I-84 20 MIN VIA I-90 34 MIN	
Travel Time To In Color	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route(s) where the travel time are being displayed that have the ability to display ful matrix color					94 10 MILES 14 MIN 41 18 MILES 25 MIN	
Travel Time To In Color	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route(s) where the travel times can be displayed in full matrix color					TIME TO 94 10 MI 13 MIN 41 18 MI 23 MIN	

XXXX= DESTINATION

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS		Portable CMS		Permanent Full Color CMS	
		Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2
PRIORITY 13: SIGN TESTING							
Sign Testing	**Roadway**	**Proximity**					
Sign Testing	Core Roadway Network and Feeder Route(s)	Any route that requires sign testing	ABCDEFGHIJKLMNOPQRS TUVWXYYZABCDEFGHIJKL 1234567890123450000000000	SIGN TESTING ON GOING	ABCDEFGH 12345679 TESTING	SIGN TESTING ON GOING	ABCDEFGHIJKLMNOPQRS ABCDEFGHIJKLMNOPQRS 1234567890123450000000000	SIGN TESTING ON GOING

Note: SSM messages can be used to test CMS boards.

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS		Portable CMS		Permanent Full Color CMS	
		Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2
PRIORITY 14: SIGN BLANK TESTING							
Sign Testing	**Roadway**	**Proximity**					
Sign Blanking	Core Roadway Network and Feeder Route(s)	Any route that requires sign blank testing						

Application	Procedure of Lighting of CMS	Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
Contractor Work Zone Messages/Road Work							
More Then One Week In Advance of Work	**Roadway**	**Proximity**					
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network where the work is being done on specific dates (which can be changed) Small board messages included	ROAD WORK PLANNED	7/28/2020 TO 8/9/20	ROAD WORK PLANNED	7/28/2020 TO 8/9/2020		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Area of the affected before bridge closure. With the specific dates of closure on 2nd phase. Make driver aler if this bridge can be accessed form other routed	BRIDGE TO BE CLOSED	11/11/2020 TO 3/17/2021	BRIDGE TO BE CLOSED	11/11/2020 TO 3/17/21		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Region of affected or Feeder routes. Message is for nightwork but can be changed to address other work and times.	I-81 NORTHBOUND TO BE PAVED	NIGHTWORK BEGINS 9/2/2020	ROAD TO BE PAVED	BEGINS EVENING 9/2/2020		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Region of affected or Feeder routes for specific time and dates of roadwork.	ROAD WORK US-XX ON 9/2/2020 9 PM - 5 AM		ROADWORK US-XX 9/2/2020	9 PM - 5 PM		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network for specific time and dates of roadwork. No defined detour but second phase could be replaced with known detour	ROAD WORK 9/2/2020 9 PM - 5 AM	CONSIDER ALT ROUTE	ROADWORK 9/2/2020 9 PM - 5 AM	CONSIDER ALT ROUTE		

XX- REPLACE WITH DESIRED INTERSTATE/ROUTE #

Less Then One Week In Advance of Work	**Roadway**	**Proximity**					
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network and Feeder route. Shall be posted in the week the work will happen. If detour is known it can be posted in 2nd phase	ROADWORK BEGINS FRI 9 PM	CONSIDER ALTERNATE ROUTE	ROADWORK BEGINS FRI 9 PM	CONSIDER ALT ROUTE		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Shall be posted on boards surrounding the bridge showing specific time of work	BRIDGE TO BE CLOSED	TONIGHT 9 PM TO 5 AM	BRIDGE TO BE CLOSED	TONIGHT 9 PM TO 5 AM		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	ROAD WORK BEGINS	MONDAY 9 AM	ROAD WORK BEGINS	MONDAY 9 AM		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	ROAD PAVING TUE 9 PM	EXPECT DELAYS	ROAD PAVING TUE 9 PM			
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area for specific dates. No defined detour but 2nd phase could be replaced with known detour	ROADWORK TO START WED AM	CONSIDER ALTERNATE ROUTE	ROADWORK TO START WED AM			
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of lane closure.	LANE CLOSURES PLANNED	TONIGHT 9 PM TO 5 AM	LANE CLOSURES PLANNED	TONIGHT 9 PM TO 5 AM		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering road closure prior to the day of work	ROAD TO BE CLOSED	FRIDAY 10 PM	ROAD TO BE CLOSED	FRIDAY 10 PM		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route before work begins.	DAILY LANE CLOSURES	MONDAY THRU FRIDAY 9 AM - 2 PM	DAILY LANE CLOSURES	MON-FRI 9 AM - 2 PM		

Application	Procedure of Lighting of CMS		Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
Contractor Work Zone Messages/Road Work								
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	ROADWORK BEGINS MONDAY	CONSIDER ALTERNATE ROUTE	ROADWORK BEGINS MONDAY	CONSIDER ALT ROUTE		
Planned Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	ROADWORK TUESDAY - THURSDAY NIGHTS	NIGHT WORK 9 PM - 5 AM	ROADWORK TUE-THUR NIGHTS	NIGHT WORK 9 AM - 5 AM		
ACTIVE ROADWORK	**Roadway**	**Proximity**						
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	LEFT LANE CLOSED 1/2 MILE	MERGE RIGHT	LT LANE CLOSED 1/2 MILE	MERGE RIGHT		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	LANES SHIFT	STAY IN LANE	LANES SHIFT	STAY IN LANE		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	ROAD CLOSED 1/2 MILE	FOLLOW DETOUR ROUTE	ROAD CLOSED 1/2 MILE	FOLLOW DETOUR ROUTE		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	EXIT 28 CLOSED	FOLLOW POSTED DETOUR	EXIT 28 CLOSED	FOLLOW POSTED DETOUR		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route where work is occuring. Posted on boards entering area of the impacted route(s)	FLAGGER AHEAD	BE PREPARED TO STOP	FLAGGER AHEAD	BE PREPARED TO STOP		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Operation will likely extend miles so multiple boards may be needed	LINE PAINTING IN AREA	WATCH 4 WET PAINT	LINE PAINTING IN AREA	WATCH 4 WET PAINT		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route.	TEMPORARY SIGNAL 1 MILE AHEAD		TEMP SIGNAL 1 MI AHD	BE PREPARED TO STOP		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route where work or incident is..	MERGING TRAFFIC 1 MILE AHEAD	STAY IN LANE	MERGING TRAFFIC 1 MI AHD	STAY IN LANE		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	MERGING TRAFFIC 1 MILE AHEAD	THROUGH TRAFFIC KEEP LEFT	MERGING TRAFFIC 1 MI AHD	THROUGH TRAFFIC KEEP LT		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route.	ROLLING LANE CLOSURES EXIT XX - XX	WATCH 4 STOPPED TRAFFIC	ROLLING LANE CLOSURES	EXITS XX - XX		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	ROLLING LEFT LANE CLOSURES NEXT 10 MILES	KEEP RIGHT	ROLLING LEFT LN CLOSURES	NEXT 10 MILES		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder Route. Posted on boards entering area of the impacted route(s)	SHOULDER WORK AT EXIT XX		SHOULDER WORK AT EXIT XX			

Contractor Work Zone Messages/Road Work

ACTIVE ROADWORK

Application	Procedure of Lighting of CMS		Permanent Full Size Single Color CMS Phase 1	Permanent Full Size Single Color CMS Phase 2	Portable CMS Phase 1	Portable CMS Phase 2	Permanent Full Color CMS Phase 1	Permanent Full Color CMS Phase 2
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	USE BOTH LANES TO MERGE	TAKE YOUR TURN	USE BOTH LANES TO MERGE	TAKE YOUR TURN		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	MOWER AHEAD NEXT 10 MILES USE CAUTION		MOWER AHEAD	NEXT 10 MILES		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	CONSTRUCTION ENTRANCE 1/4 MILE	TRUCKS ENTERING HIGHWAY	CONST ENTRANCE 1/4 MILE	TRUCKS ENTERING HIWY		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	ROUGH ROAD SURFACE	NEXT 3 MILES	ROUGH ROAD SURFACE	NEXT 3 MILES		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route where worki is taking place. Boards leading up to area should be utilized.	FRESH OIL & CHIPS	NEXT 2 MILES	FRESH OIL & CHIPS	NEXT 2 MILES		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route where there are multiple lanes close. Should be posted in advance of work.	ROADWORK NEAR I-XX	RIGHT 2 LANES CLOSED	ROADWORK NEAR I-XX	RIGHT 2 LANES CLOSED		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route.	I-XX NORTHBOUND EXITS XX - XX CLOSED	TAKE I-XX N EXIT 50A	I-XX N EXITS XX-XX CLOSED	TAKE I-XX N EXIT 50A		
Active Road Work	Core Roadway Network and Feeder Route(s)	Core Roadway Network or Feeder route. Posted on boards entering area of the impacted route(s)	2 LEFT LANES CLOSED	AFTER I-XX	2 LEFT LANES CLOSED	PAST I-XX		

XX- REPLACE WITH DESIRED INTERSTATE/ROUTE #